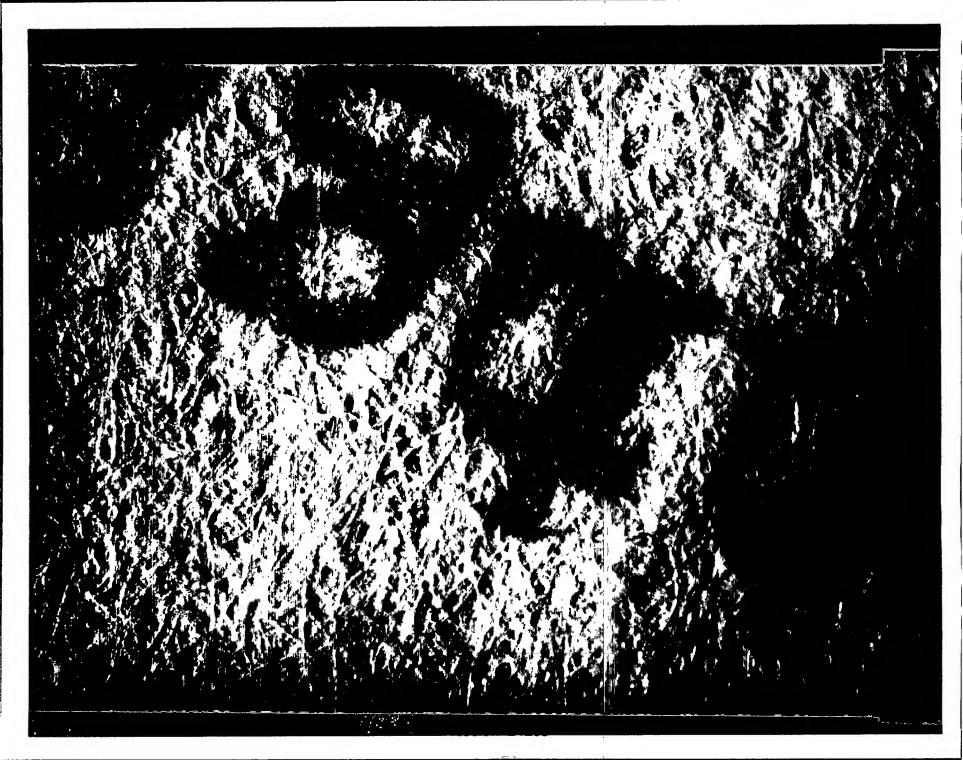
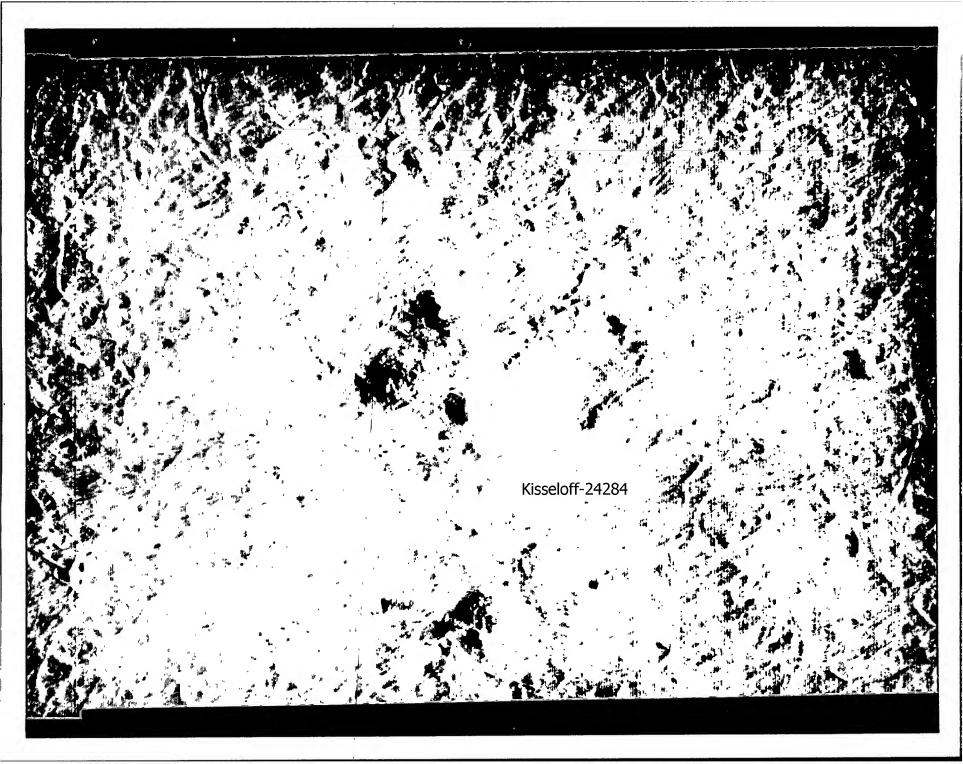
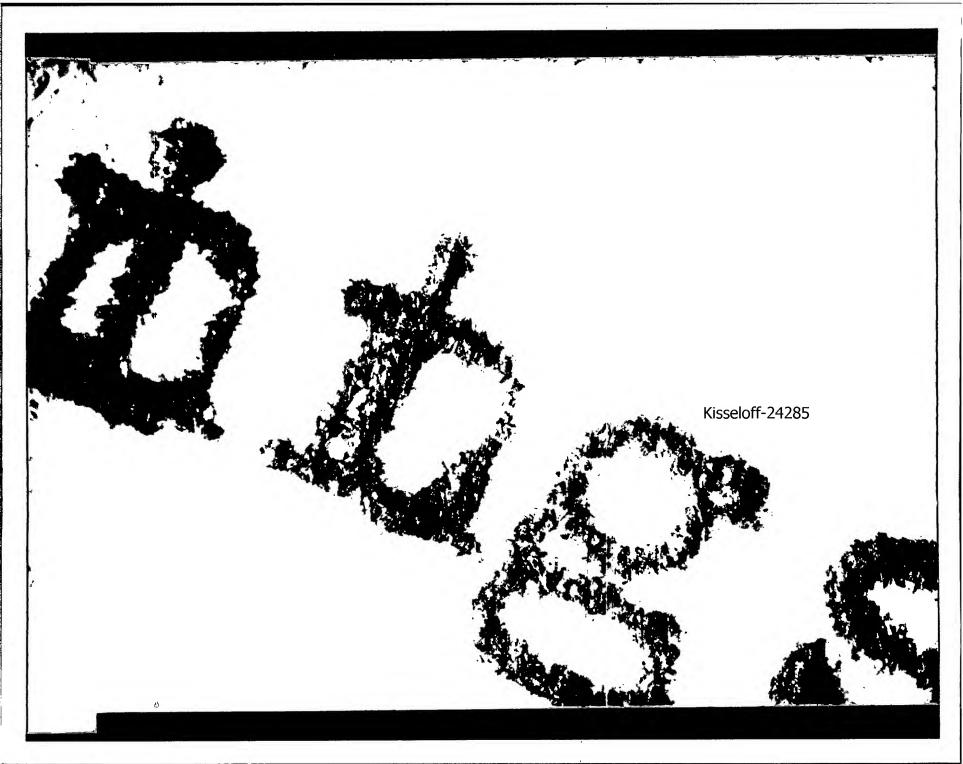
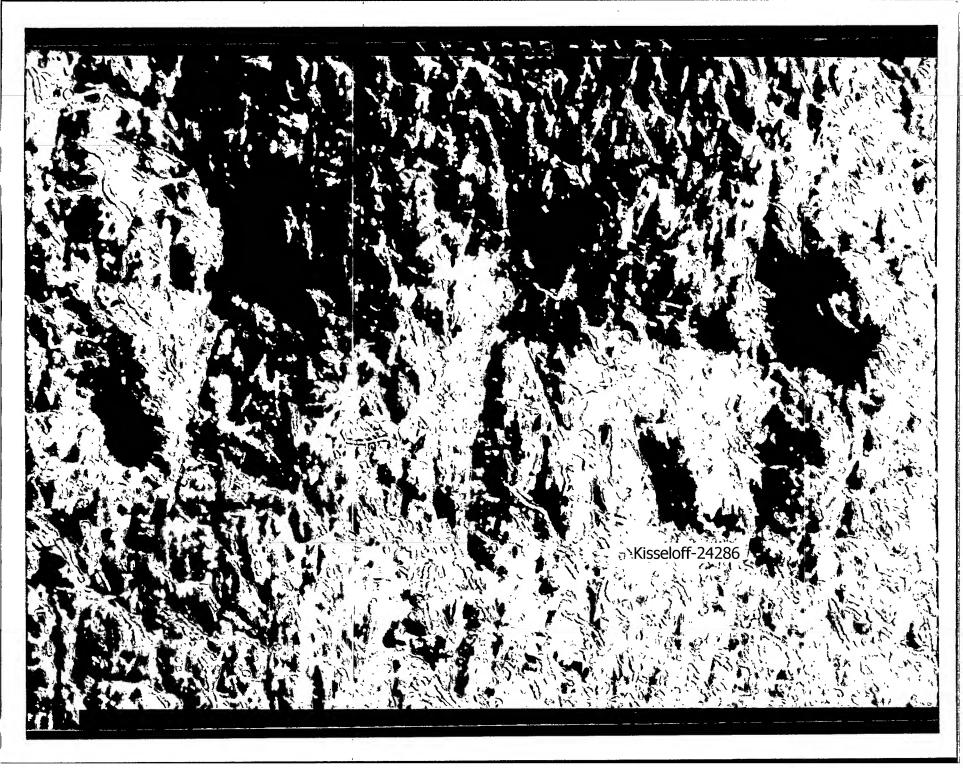
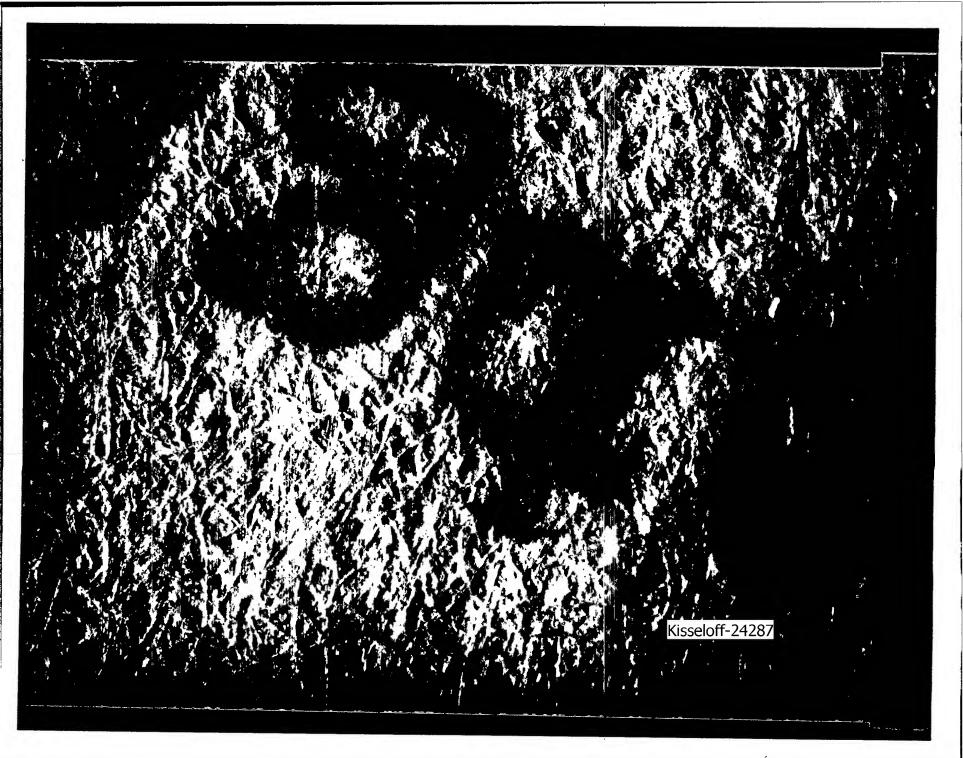
Photos 74-1333-4749 Part/ Hiss

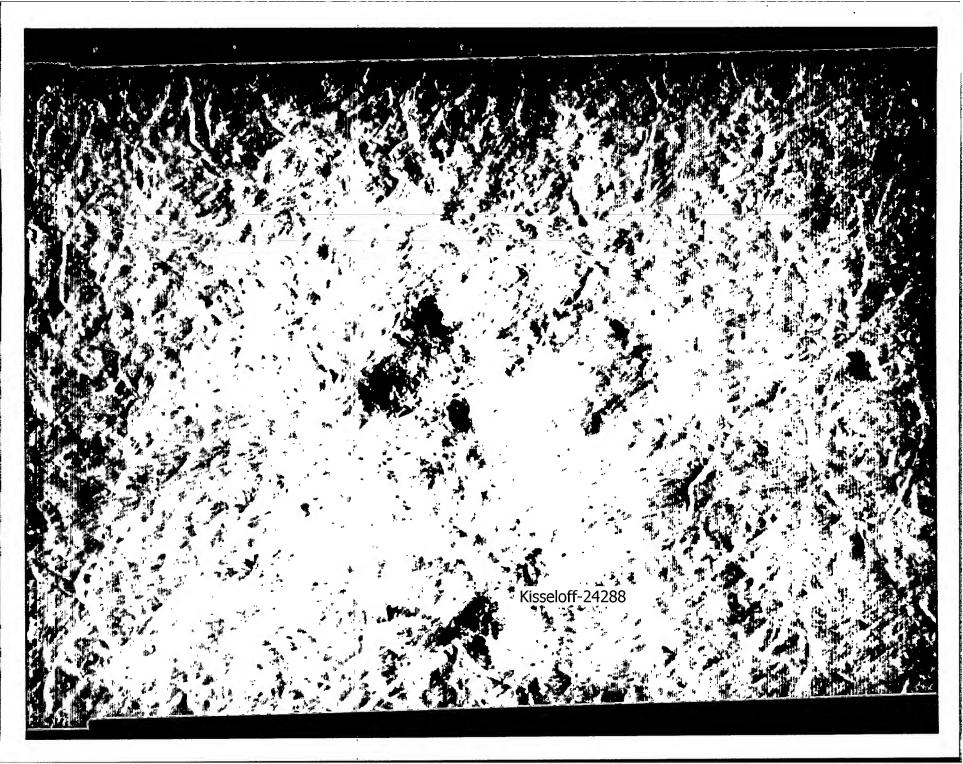


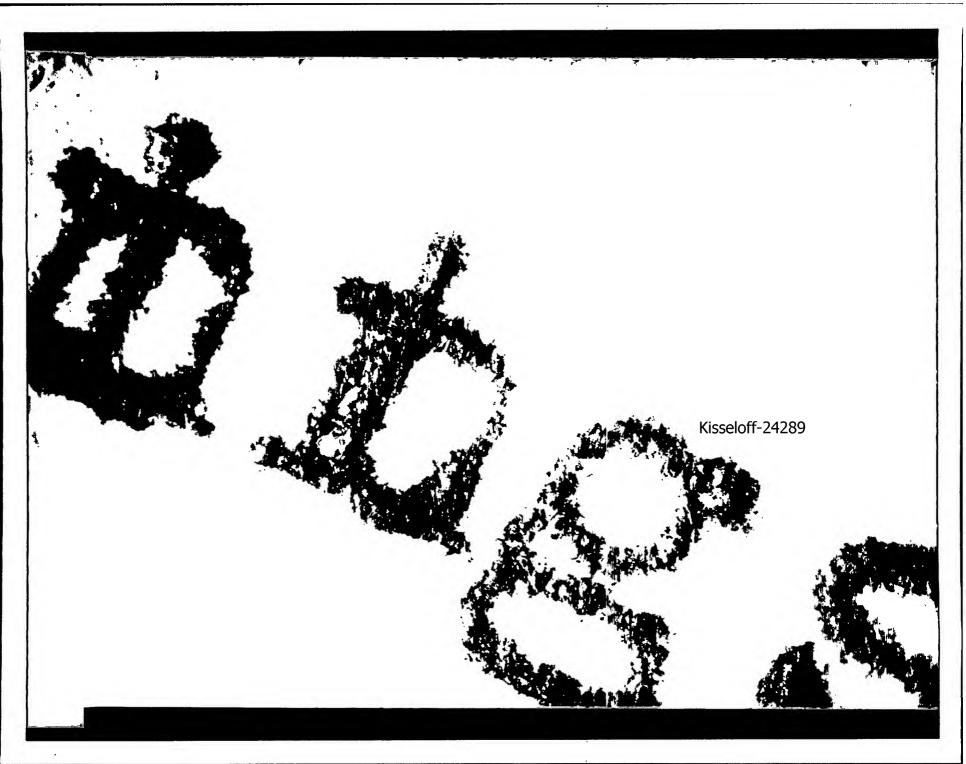






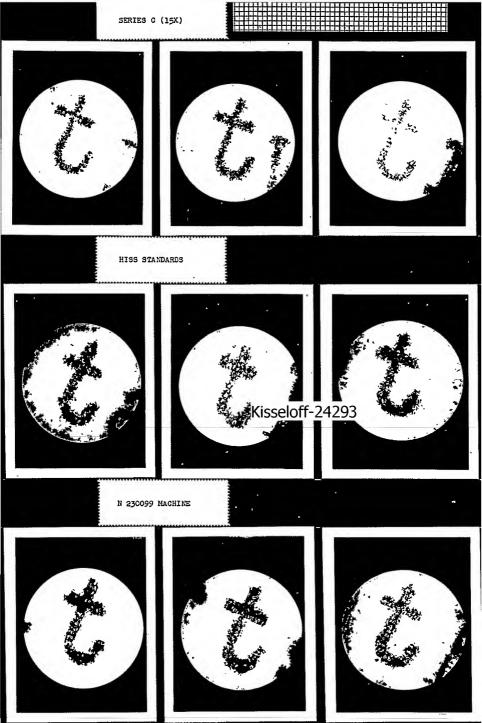








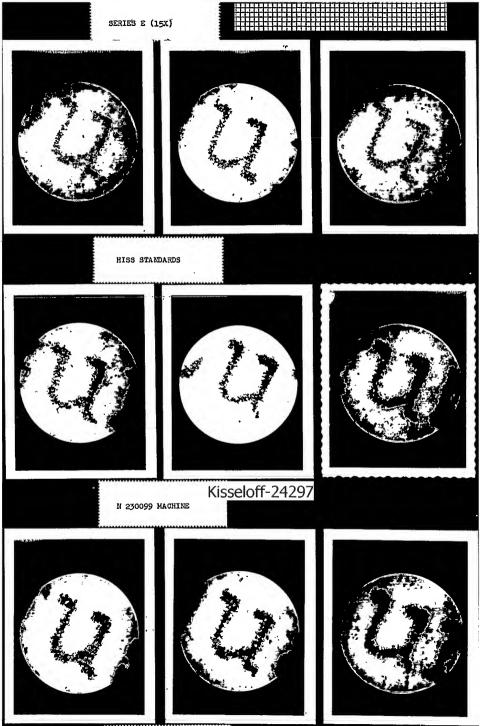
t. The arc in the terminal curve of the small letter "t" is wider in most of the imprints of this letter in the Hiss Standards 46-B, 37 and TT than in the imprints of this letter by #N230099, and the line of the curve follows a different pattern.



t. The arc in the terminal curve of the small letter "t" is wider in most of the imprints of this letter in the Hiss Standards 46-B, 37 and TT than in the imprints of this letter by #N230099, and the line of the curve follows a different pattern.

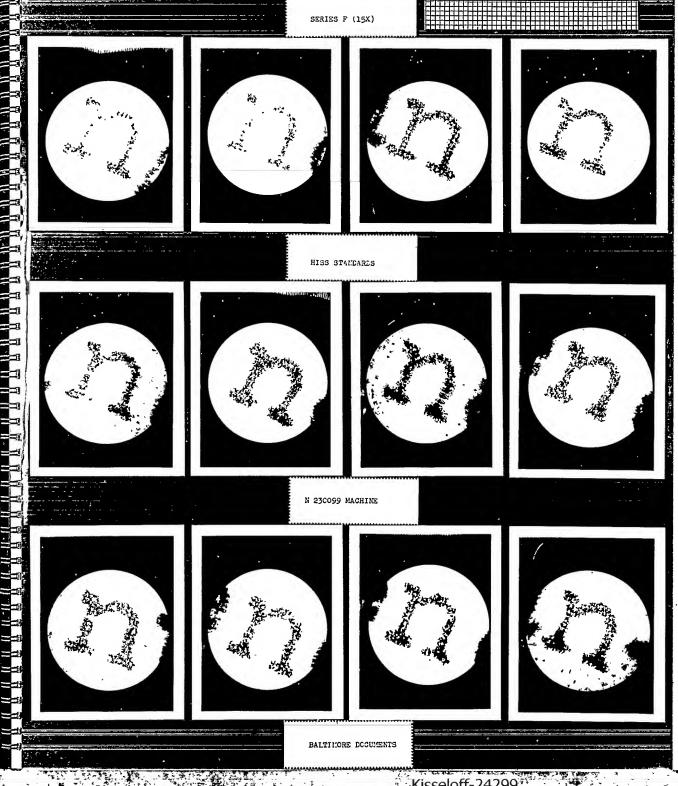
### SERIES E

u. The angles where the lower scriph and the loop, respectively, meet the right leg are different in the imprints of #N230099 from those in the Hiss Standards 46-B, 37 and TT.



#### SERIES F

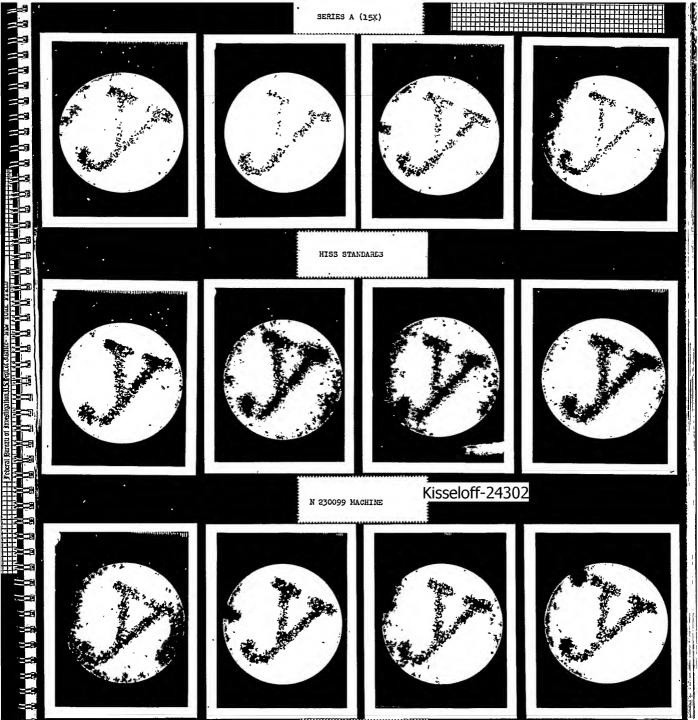
n. The differences between the imprints of this letter in the Hiss Standards 46-B, 37 and TT, and the imprints in the typing from #N230099, are most clearly shown in the angles where the seriphs meet the left and right leg and where the loop meets the left upright.



Kisseloff-24299

74-1333-4749

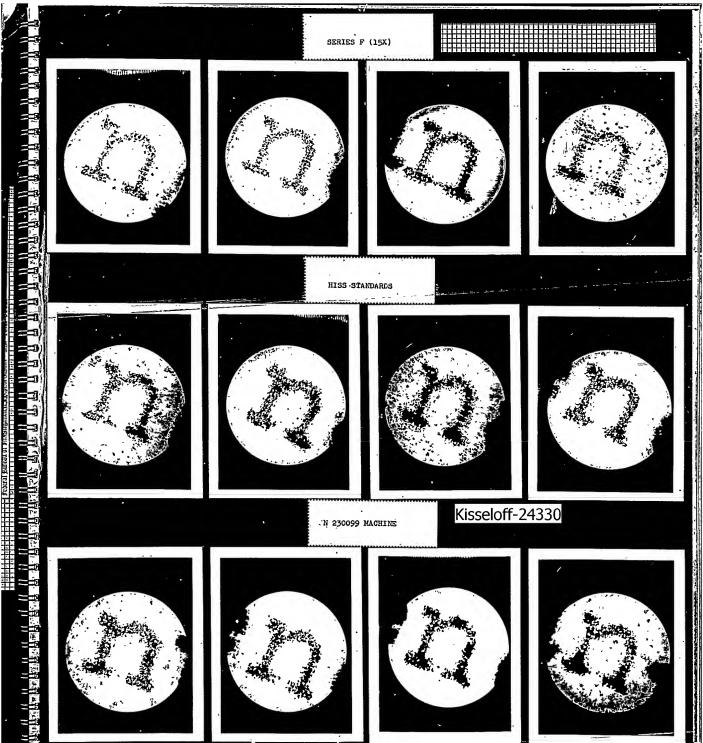
The clear-out sharp angles which are almost always apparent y٤ at the juncture of the scriphs and the legs of the small letter "y" in the Hiss Standards 46-B, 37 and TT are almost always blurred and indistinct in the imprints of this letter by N230099. The left leg of the small letter "y" appears to meet the main staff of the letter at a higher point in the imprints of this letter in the Hiss Standards than in the imprints made by #N230099. This difference makes the descender of the small letter "y" longer in the Hiss Standards than it does in the imprints from #N230099. There is a break or cut in the type face of the terminal arc in the descender of the small letter "y" in #N230099 which does not appear in the other two sets of documents. This defect helps to obscure the difference between the length of the descender of the "y" in the #N230099 machine and that of the "y" in the Hiss Standards where the type face is continuous in this terminal curve. It also tends to confuse micrometric comparisons between the letter "y" as it appears in the Baltimore Documents and as it appears in specimens from #N230099.



Known paint specimen taken from dumb waster shoft in Sevine residence in Brookly on My in 3/29/52 Radey

### SERIES F

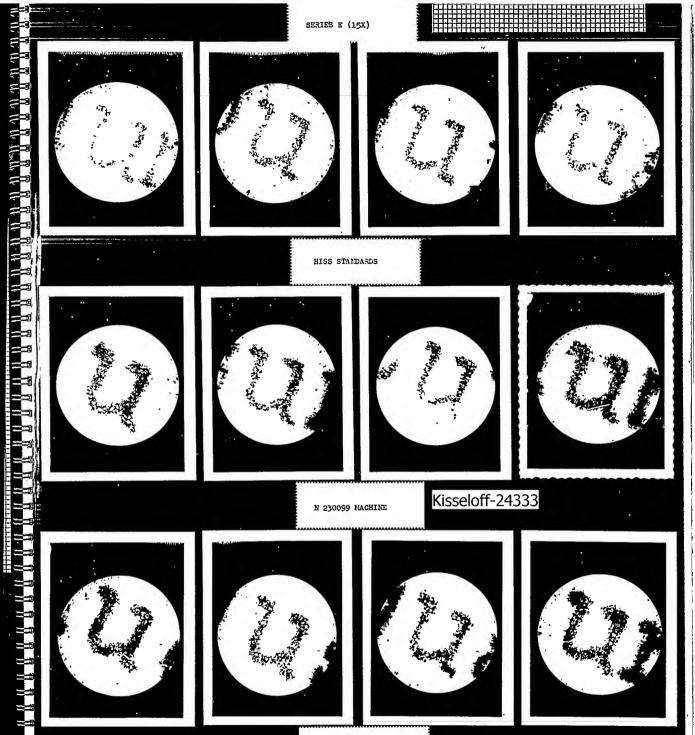
the Hiss Standards 46-B, 37 and TT, and the imprints in the typing from #N230099, are most clearly shown in the angles where the seriphs meet the left and right leg and where the loop meets the left upright.



74-1333-4749

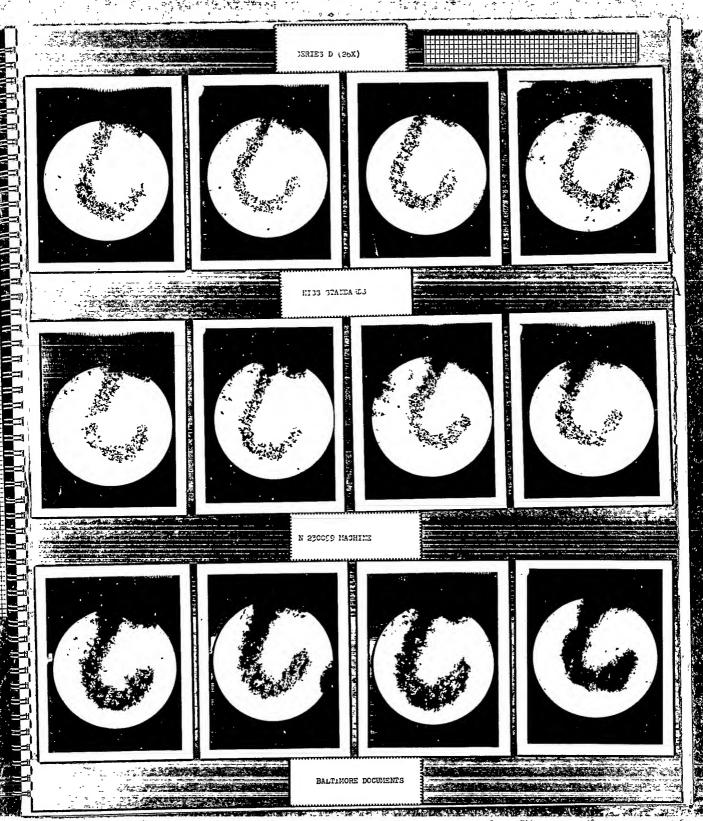
# SERIES E

u. The angles where the lower scriph and the loop, respectively, meet the right leg are different in the imprints of #N230099 from those in the Hiss Standards 46-B, 37 and TT.



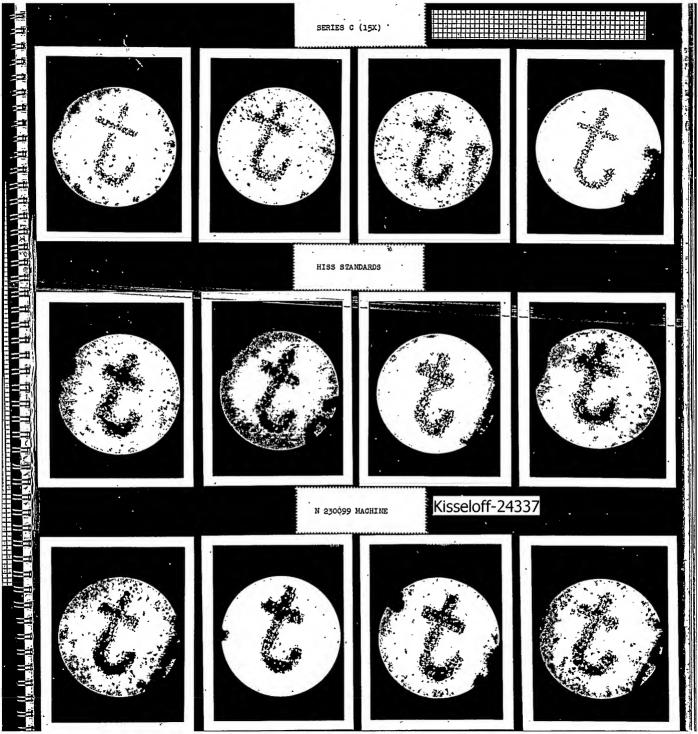
BALTIMORE DOCUMENTS

wider in most of the imprints of this letter in the Hiss Standards 46-B, 37 and TT than in the imprints of this letter by #N230099, and the line of the curve follows a different pattern.

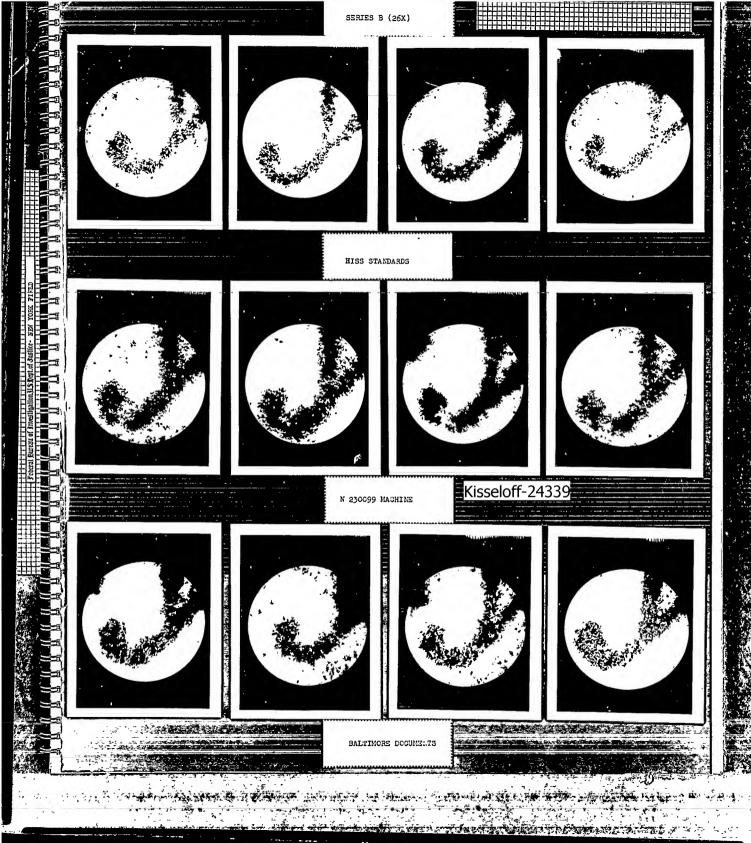


Kisseloff-24335

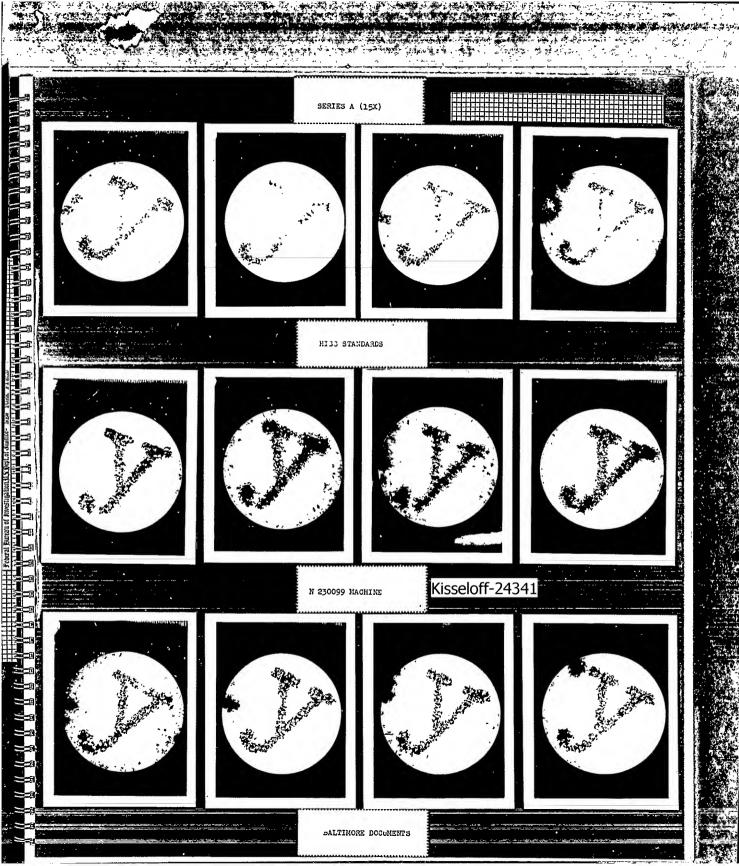
t. The arc in the terminal curve of the small letter "t" is wider in most of the imprints of this letter in the Hiss Standards 46-B, 37 and TT than in the imprints of this letter by #M230099, and the line of the curve follows a different pattern.



The clear-cut sharp angles which are almost always apparent at the juncture of the scriphs and the legs of the small letter "y" in the Hiss Standards 46-B, 37 and TT are almost always blurred and indistinct in the imprints of this letter by N230099. The left leg of the small letter "y" appears to meet the main staff of the letter at a higher point in the imprints of this letter in the Hiss Standards than in the imprints made by #N230099. This difference makes the descender of the small letter "y" longer in the Hiss Standards than it does in the imprints from #N230099. There is a break or cut in the type face of the terminal arc in the descender of the small letter "y" in #N230099 which does not appear in the other two sets of documents. This defect helps to obscure the difference between the length of the descender of the "y" in the #N230099 machine and that of the "y" in the Hiss Standards where the type face is continuous in this terminal curve. It also tends to confuse micrometric comparisons between the letter "y" as it appears in the Baltimore Documents and as it appears in specimens from #N230099.



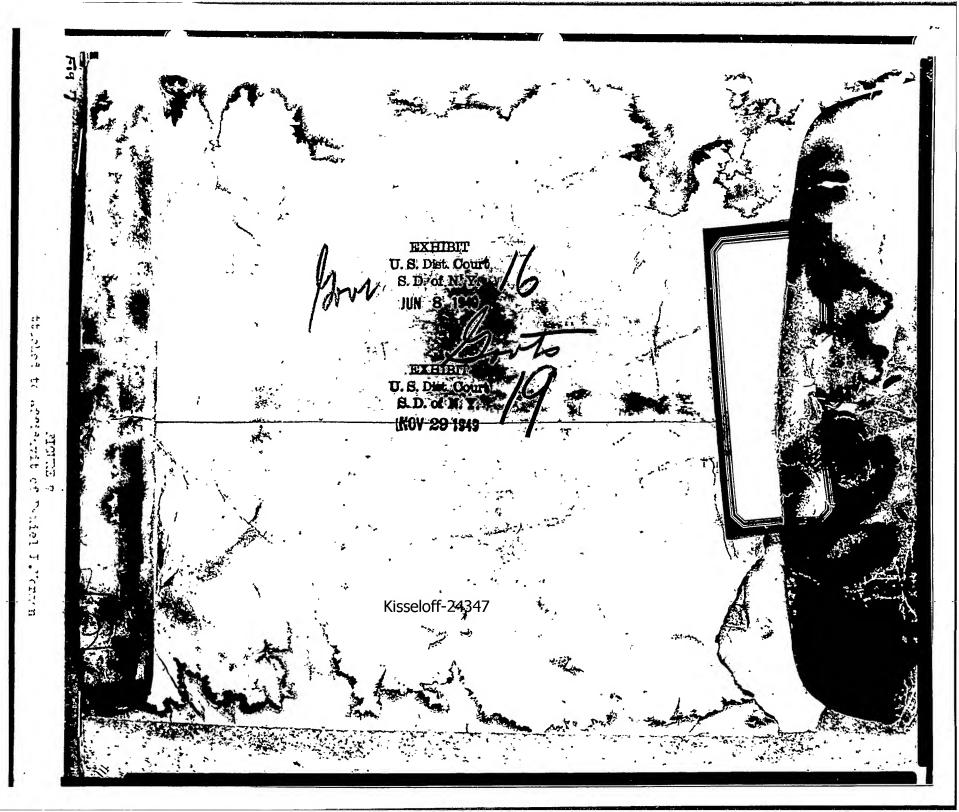
The clear-cut sharp angles which are almost always apparent at the juncture of the seriphs and the legs of the small letter "y" in the Hiss Standards 46-B, 37 and TT are almost always blurred and indistinct in the imprints of this letter by N230099. The left leg of the small letter "y" appears to meet the main staff of the letter at a higher point in the imprints of this letter in the Hiss Standards than in the imprints made by #N230099. This difference makes the descender of the small letter "y" longer in the Hiss Standards than it does in the imprints from #N230099. There is a break or cut in the type face of the terminal arc in the descender of the small letter "y" in #N230099 which does not appear in the other two sets of documents. This defect helps to obscure the difference between the length of the descender of the "y" in the #N230099 machine and that of the "y" in the Hiss Standards where the type face is continuous in this terminal curve. It also tends to confuse micrometric comparisons between the letter "y" as it appears in the Baltimore Documents and as it appears in specimens from #N230099.



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FIGURE 5 attached to Affidavikis Selom 24345 Norman



COUNTY OF NEW YORK

EVELYN BELTZER EHRLICH, being duly sworn, deposes

My name is Evelyn Seltzer Shrlich. I live at 117 Bescon Street, Boston. By married name is Mrs. William Ehrlich. I am a graduate of the University of Pennsylvania where I studied architecture and received the degree of Bachelor of Fine Arts in 1929. Excepting for two years during the war, from 1934 until 1951 I was on the staff of the Fogg Museum of Art, Harvard University, as a part time worker. While there, as a member of the Department of Conservation and Research, my special field of activity and investigation was concerned with the technical examination and conservation of prints, drawings, manuscripts and typography. In the course of my work and under the auspices of the Fogg Museum I was engaged from 1940 to 1951 in an intensive investigation concerned with the detection of spurious prints. In this connection I devoted part of my work to the development of visual techniques of presentation to illustrate the pertinent technical details in the detection of deceptive imprints and typography. summarized this print research project in a book entitled "The Detection of Spurious Prints" which is now in manuscript form in the hands of Harvard University.

An article which I wrote and illustrated describing the use of photomicrography as a research tool for the detection of deceptive rare book facaimiles was published in the Harvard Library Bulletin, Vol. IV, No. 1, Winter 1950, and was recently reprinted in the Journal of the National Archives of India, Vol. IV, No. 1.

In December, 1951, I was consulted by Section & Line, attorney for Alger Miss, with respect to us expect he said he was conducting in concession with the Ries cace. He told me that he was toying to find out whether it would have been possible for Whitteher Charlese to have had fecsimile typewriter made which would write so nearly like the typewriter which Mr. His had comed that experts locking at simples written on it would be misled into thinking that it was the Hiss typewriter that had been used. He said he had in his possession the Woodstook mashine that was suppose to have belonged to the Hissos, and that he was having another machine made which he hoped would be able to duplicate the typing from the so-called Hiss mashine. He told me that the work on the machine was not yet finished, but that his experts working on it felt that it was quite close to being a perfect duplication, and that he needed a fresh eye to help him make sure whether he was on the right track. He asked me whether I would be willing to assemble specimens from the two machines to see whether they eculd be told apart.

Lane sent me some samples typed on the so-called Hiss mashine and the faceimile machine which had been altered to imitate it. These samples were not marked or separated in any way to indicate which machine had been used to type any individual document. When I examined them I was struck by the extraordinary degree of similarity which had been achieved in the typeface of those two machines. However, when I examined the samples more carefully under a microscope (magnification 30%) I found a few consistent details of difference which appeared to make it possible to separate these samples into two groups. Apart from these few microscope scopic details I found that an amazingly faithful reproduce

tion of the so-called Hiss machine had been fabricated in almost every respect.

I made a similar examination of further samples which Er. Lame sent to me on December 31, 1951, and reached the same conclusion. I separated the samples into two groups and informed Mr. Lame of my results. Again I felt that I had successfully differentiated the typing of the two machines, but only on the basis of a few specific characteristics. Except for these subtle details, I found that the microscopic variations on one machine had been duplicated on the other so faithfully that I might not have believed it possible if I had not been informed that two machines were involved.

informed me which specimens were typed by one mashine and which from the other (confirming the conclusions I had already reached), and on Jameary 7, 1952, provided me with some identified samples from both machines which were typed by the same typist using the same ribbons and a similar variation of pressures for both sets of samples. I thereupon took twolve characters appearing in each set and made eight to twolve photomicrographs (7.6%) of each, using a different imprint for each exposure of the same characters appearing the same characters.

These photomicrographs (7.6%), which are included herewith as Series A, were made with a Leits Ultropak misrescope, a fluorescent microscope table lamp, and a Land Polaroid camera. Each of the series of letters included was photographed under identical conditions of magnifications illumination, and photographic processes and no further

enlargement was made of these magnified details. Orthochromatic Polaroid Film So. 36 was used. The precision
controls of the automatic printing and developing processes
in the Land Polaroid camera and film allowed for a series
of similar letters from various documents to be photographed
under conditions as nearly identical as is possible. By
taking the photography of these details through a microscope
it was possible to obtain a magnified image of each letter
without the usual kind of distortion which is inherent in
most types of photographic enlarging and copying processes.

Duplicate prints of Series A were also copied with a Polaroid camera and Polaroid film. This was done without any further enlargement of the photomicrograph, and made it possible for all duplicate prints to be made with the same precision controls of printing and developing as the originals. However, it will be noted that the duplicates (as in all photographs of photographs) do not show some of the fine details which can be seen on the original photomicrographs.

The original set of these photomicrographs of similar characters from both machines is attached to the original of this affidavit and a set of the duplicates is attached to an executed carbon hereof.

I have not indicated which machine was used to type these individual characters in Series A. However, each of the photographs is identified by a number and I have carefully noted the machine used for its typing and the document from which the detail was made in a code book which is in my possession.

After this experiment was made Mr. Lane suggested that I read the testimony given by the Government's expert, Mr. Ramos C. Feehan, in the second trial in the Hiss case,

and familiaries mount with the arithmia which he had applied in demonstrating to the just his consider that the Baltimore Decements and the Rine phenderes had been typed on the same machine. I have done so, and it is my opinion that my document expert, acting with researching care, who applied those same criteria to the numples sent me by Mr. Lane would reach the conclusion that a single machine had been used to type all of them. Ir, Pechan book ten separate characters appearing both in the Baltimore Documents and in the Niss standards and pointed put similar deviations in the two groups of documents. On this syldense he concluded that a single machine had been much. It is my opinion that Mr. Lane's two machines contain many more similar deviations than the ten which Mr. Feehan described to justify his testimony at the trials The twelve sets of individual characters from these two machines in Series A are used to illustrate a few of the similar deviations, It would be possible to provide a similar series for almost every character on the machines.

study of specimens from the so-called Hiss machine and to compare them, if possible, with some of the photocopies of the Baltimore Documents and also the photocopies of the Hiss documents which were used as Government standards. For this purpose I was given photocopies of the Baltimore Documents dated Berlin, Feb. 12, 1938, Paris, Feb. 16, 1938, and Paris, Feb. 16, 1938. I was also given photocopies of the four Hiss documents which were used as Government standards.

certain kinds of differences and similarities in a questioned document can be deduced from a photocopy of the document used as a standard, i.e., alignment, slant, spacing, and position of the letter. However, I believe

sistent differences in typography can only be reliable if it is based on a comparison of the questioned dossess with the original copy of the material used as a standard. I have not had access to the original copies of the documents sentioned above, but making allowances for the distortion of the photocopying process which was used for the distortion ment standard \$6-5, I observed certain differences in the sential distortion of the letters in this document and the simples typed by the sentialed hiss machine in Mr. Lane's possession. I found that the photocopies of the other him standards and the Baltimore Documents which I had emained were so the terted by the copying process that they were too impossession to work from.

of the Hiss standard (Severment Exhibit hows) and speciment of typing from the so-called Hiss machine in Mr. Lanets personalem. On the basis of this comparison, it is my epinion that it is entirely possible that the so-called Hiss machine now in Mr. Lanets personaled is not the machine which was used to type the Hiss standard. I have this complished on my observation of certain differences which might not be due to age, normal wear, or personal typing idiosymeracies. To illustrate these differences I have made photomicrographs in the same manner as series A, but at higher magnifications (15% and 18 %). These are attached as Series B-1 through B-7.

. I make, for example, the fellowing differences;

There is an interruption in the typeface of the descender of the small letter "y" in all of the imprints of this letter by the so-called Hiss machine. There is no apparent break in the descender of this letter "y" type in the imprints of this letter seen in the photocopy of the Hiss standard.

See photomicrographs, Series B-I.

There is a complete break in the descender of the main element of the small letter "p" in about 90% of the times which this letter appears in the samples typed by the so-called Hiss machine. The photocopies of the Hiss document give no indication of this particular deterioration in the small letter "p".

See photomicrographs, Series B-2.

in almost all of the imprints of the letter "m" in the photocopy of the Hiss document the highest part of the loops appears to be farther to the right and slightly different in shape than the more rounded loops of the small letter "m" in the samples typed by the so-called Hiss machine.

Ses photomicrographs, Series B-3.

The lower right seriph of the small letter "u"
appears to be horizontal in almost a third of the
times which this letter appears in the photocopy
of the Hiss document, while it appears to be consistently slanted downward at an angle in the
imprints of this letter made by the so-called Hiss
machine. The attachment of this lower right seriph
to the main element of the letter appears abnormal
in the so-called Hiss machine. The printing surface
of this sariph seems to be set on a lower level
than the typeface of the rest of the letter. The
upper scriphs of this letter also often appear
slanted at a different angle in the imprints of
this letter in the Hiss document from those made by
the so-called Hiss machine.

See photomicrographs, Series B-4.

The scriph at the foot of the terminal element of the small letter "d" is manifest horizontally, apparently at full length, in about a third of the imprints of this letter in the Hiss document. This scriph at the foot of the right side of the letter "d" is manifest only occasionally, and then very short in length, in the imprints of this letter found in the samples typed by the so-called Hiss machine.

See photomicrographs, Series B-5.

The width of the are in the terminal evere of the bundli letter "t" appears wider in most of the imprints of this letter in the photocopies of the Hiss document than in the imprints of this letter made by the re-called Rise mechine.

See photomicrographs, Series B-6.

The seriph on the right feet of the letter the appears to be herizontal in the imprints of this letter in the photocopy of the Rise document. In the imprints of this letter made by the so-called Hiss mechine this right soriph is almost always slanted at a downward angle.

See photomicrographs, Series B-7.

However, for the reasons already stated, my observations equid be more complete if I were in a position to examine the original documents. I should add that in exemining the similar deviations mentioned by Mr. Feehan on the photocopy of the Hiss document which was the only one of those furnished to me that was a clear enough photocopy for me to make any use of. I observed that the deviations described for some of Mr. Feehan's chosen examples were not consistent throughout this standard. Two of the deviations were not consistent for over thirty per cent of the times the letter was used so far as was apparent from this document.

Sworn to before me this

2476 day of January, 1952.

Evelyn Seltzer Ehrlich

Kisseloff-24355

MARGARET L. BURTON

Motary Public for the State of New York

Qualified in New York County

No. 31-0515250

dare

Certs. Filed with Co. Clks., Kings and Rockland and with City Revs. N.Y. and King Committees Exerc., narch 30, 195.3

74-1333-4749

Freham

SECOND SUPPLEMENTAL AFFIDAVIT OF CHESTER T. LANE
IN SUPPORT F MOTION FOR NEW TRIAL
ON GROUND OF NEWLY DISCOVERED EVIDENCE

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

UNITED STATES OF AM RICA,

-against-

Criminal No. C-123-402

ALGER HISS,

Defendant.

STATE OF NEW YORK )

: ss.:
COUNTY OF NEW YORK )

CHESTER T. LANE, being d'ly sworn, deposes and says:

I am an attorney at law, a member of the firm of Beer,

Richards, Lane " Haller, attorneys for Alger Hiss, the

defendant herein, and am in charge of this case for my firm.

This is my second supplemental affidavit in support of the

defendant's pending motion for a new trial on the ground of

newly discovered evidence under Rule 33 of the Federal Rules

of Criminal Procedure.

Kisseloff-24357

## THE BALTIMORE DOCUMENTS

out which there would have been no case worth considering—
was the so-called Lalti ore Documents. These four small
handwritten notes on scratch-pad paper and sixty-five type—
written sheets, copying or paraphrasing or surmarizing State
Department documents dated in the first three months of
1933, were Chambers's bombshell in his defense to the libel

action which Alger Hiss had brought against him in the federal court in Baltimore. They were part, he said, of the fruits of an espionage operation in which he and Alger Hiss had been engaged together from 1934 to 1938. handwritten notes (Baltimore Documents 1-4) were apparently in Alger Hiss's handwriting, and Alger, he claimed, had given them to him; the typewritten pages (Baltimore Documents 5-47) he said had been typed by Priscilla Hiss for Alger on the family typewriter from State Department documents Alger had brought home overnight for the purpose. defense conceded Alger Hiss's handwriting on the four small memoranda, and did not contest the Government's expert testimony that the typed sheets had been typed on the same machine as had been used for the so-called Hiss Standards -- letters. etc., unquestionably written on the Hiss family typewriter from 1931 to 1937.

There was, of course, other evidence. There were the two developed microfilm strips that House Committee investigators found, wrapped one in another in wax paper, in the hollowed out pumpkin to which Chambers led them at his Jestminster, Maryland, farm on December 2, 1948 (R. 703-9, 713). Each of the fifty-eight frames in the two strips was a photographed page of an original State Department document. These microfilms were melodramatically effective; documents of state, found at night by Congressional investigators in a pumpkin patch, presented such an exciting incongruity that all of Chambers's "proofs" of his charge, including the typed and handwritten sheets he produced in the Baltimore libel suit, became popularly and inaccurately

known as the "Pumpkin Papers". But intrinsically, and evidentially, the microfilm strips were insignificant. There was only Chambers's word for it that the originals which were photographed had come to him from Alger Hiss. Ten frames (covering Baltimore Exhibits 54 and 55) were photographs of copies of three State Department cables which had passed through Alger Hiss's office and been initialled by him. The other forty-eight were photographs of a group of papers related to a proposed trade agreement with Germany; the subject matter fell in the province of Alger Hiss and his chief, Assistant Secretary Sayre, but the particular copies photographed were not the ones which would normally have gone through the Hiss-Sayre office (see Defendant's Brief on Appeal, pp. 14-20). The microfilms by themselves would have been negligible as proof that Alger Hiss was giving out State Department secrets; they were important only as the capstone of the edifice which Chambers had started to build with the typed Paltimore Documents.

There was the typewriter, too. In my first and second affidavits in support of this motion I have spoken of how the Government used the typewriter as dramatic visual evidence of Hiss's guilt--even though the Government made no effort at the trials to show that this particular typewriter in evidence (Woodstock #N230099) was the original Hiss typewriter. The typewriter was awfully effective.

And there was Edith Murray--the mysterious maid kept under wraps by the Government until the last day of the second trial, when the defense would have no chance to find out, and show the jury, whether what she said was truth, or imagination, or distorted recollection. Edith Murray

said she had seen the Hisses and the Chamberses visit.

together fourteen years earlier; she said she saw Alger
at Chambers's home for three or four minutes, once, that
long ago, and certainly remembered him. She was effective,
too.

tended to confirm Chambers's basic proofs, the Baltimore
Documents—the typed and nandwritten documents that Chambers
finally put up at the libel suit deposition hearing in
Ealtimore. Handwritten notes like Taltimore Documents 1-4
might easily have been stolen off scheone's desk, or out of
someone's wastebasket; but the typewritten sheets were really
important. They seemed to have been typed on the hiss family
typewriter—the one Priscilla had been given by her father
in 1932 or 1933 and which she and Alger had certainly had
around until late 1937 or early 1933. The Cover ment expert
said they had been. The defense had no proof that they had
not been. The jur obviously concluded that they had been,
and for that reason convicted Alger hiss.

My earlier affidavits in support of this motion have dealt at lengt with the typewriter. I have sown that Chambers could have created a fake typewriter to forge his Paltimore Locuments with, and how he could have done so. I have offered proof not only that the machine in evidence, Yoodstock M230099, is not the original hiss family typewriter, but that it is itself a deliberately fabricated machine—leaving no possible inference but that the typed Baltimore Documents are forgeries. I have tendered evidence that Edith Furray's recollection is, to say the loast, untrustworthy, and that Chambers himself had gone into hiding

from the Communist Party weeks before the dates of many of the State Department documents which he claimed Alger had had copied for him on the Woodstock. My earlier affidavits are, I believe, compulsive towards the granting of a new trial.

But in those earlier affidavits I could not present proofs based upon study of the Baltimore Documents themselves. The defense had photographs of some of them; but these had been taken early in the case, before my experiments had exposed the techniques by which forgery by typewriter could be—and in this case undoubtedly was—accomplished. I had asked the Government for access to the originals for expert examination and photography, as well as for testing of their paper content and condition. My request had been refused, and in my first supplemental affidavit I gave notice that at the hearing on the motion I would move in open court for an order allowing me to make such an examination.

After my first supplemental afficavit was filed, the United States Attorney asked me to consent to an adjournment of the hearing on the ground that he needed more time to study the affidavit and its supporting material. I said I had no objection, but felt that I should not be required to defer my subsidiary motion for leave to examine the original documents. I suggested that we take both points Kisseloff-24361 up with Judge Goddard.

At our conference with Judge Goddard in chambers on .

March 21st a new time schedule was set for the hearing of the motion, and the United States Attorney withdrew his objection to my requested examination. The documents were accordingly produced at my request in Boston on April 1st, and, under continuous FEI supervision and subject to reasonable limitations as to working hours, were made available to my experts when and how they were needed, for a period of a little over two weeks. I commend the cooperation with which toth the United States Attorney and the FBI carried out the spirit of the agreement under which the documents were to be made available for examination.

At the conference mentioned in the text, at which the United States Attorney withdrew his objection to my proposed examination of the documents, he requested that he be given not less than four weeks in which to answer such further supplemental affidavits as I might file as a result of the examination, as well as my earlier affidavits. This arrangement was acceptable to me and was approved by Judge Goddard, and at a further conference in chambers on March 31st, after I had had an opportunity to consult with my experts, the dates were set as follows:

Further affidavits in support
of motion

Government's counter-affidavits
Interchange of memoranda of law
Hearing on motion

April 21
May 19
May 26
June 2.

2/ Three subsidiary requests I made of the United States Attorney were refused by him on what seemed to me to be unnecessarily technical grounds. These will be mentioned below.

<sup>1/</sup> The motion was originally made on January 24, 1952, returnable for hearing on February 4, 1952, the next regular available criminal motion day. I consented to an adjournment to February 25th, and later a conference was held with Judge Goddard in chambers on the United States Attorney's request for a further adjournment. At this conference, on February 19th, the motion was set down for argument on April 3th, the Government's counter-affidavits to be filed and served on March 24th, and memoranda of law to be filed and exchange on March 31st.

### RESULTS OF THE EXAMINATION OF THE LOCUMENTS

This, my second supplemental affidavit, deals with the results of the examination of the documents. The examination has been most fruitful. I believe that it leaves no vestige of doubt but that Chambers's whole story is false, and that his fraudulent plot now stands exposed.

# Background: Chambers's Story of the Origin and History of the Documents

typed the documents on the family machine, as Alger was no typist. According to Chambers's story, the ordinary plan was to have Alger bring nome original documents overnight, so that Priscilla could make typed copies or summaries. Every ten days or two weeks Chambers would come around to pick up the typed material, together with originals which Alber in hit have brought nome on that particular cay. Chambers would take the copies and originals to Paltitore that night, to have them photographed; later the same night he would come back to Vashington and return the originals to Alger. The typed copies or suggested he would burn.

For some reason never yet convincingly explained, the crop of typed papers which Chambers produced in Ealtimore he kept, instead of burning them. He broke with the Party, and abandoned his document conspiracy, around April 15, 1933. The papers which e had kept, instead of burning, he put into an envelope, which he gave for safekeeping to his wife's nephew, (athan Levine, in May or June of that year. Levine put the envelope in an old dumbwaiter shaft in his mother's house in Prooklym, and for ot about it. He had no idea what was in it.

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There the documents are said to have rested for more than ten years. On November 4, 1943, at the deposition hearing in Baltimore, Chambers was asked to produce any correspondence or other papers that he might have received from any member of the Hiss family. He produced none the next day, and the hearing was adjourned. It was resumed on November 15 for testimony by Mrs. Chambers. On the following day Chambers reappeared, with the documents. Now. for the first time in his many official stories, he asserted that the conspiracy had actually involved the copying of official State Department papers. He told how he had recollected the existence of the envelope that he had given so many years before to list an Levine; how he had asked Levine for it; low them had gone together on November 14th to the house in Procklyn and Levine Lad pulled the dust-encrusted orvelope out of the dumbwaiter anaft and given it to min: how e had opened it by himself in the kitchen, while Levine was cleaning up the dust that had fallen on the floor; and how he was amazed at finding that the envelope contained these typewritten sheets, which he had forgotten all about.

There were the short handwritten memoranda. There were some yellow sheets supposedly in the handwriting of Harry Dexter white. There were two strips of developed microfilm, and three cylinders of microfilm, undeveloped. And, according to Chambers's article in the Saturday Evening rost for April 1952, there were "one or two smaller items of no particular importance".

<sup>3/</sup> This account necessarily telescopes Chambers's varying stories in the halti-re deposition nearing, the first and second trials, and his Saturday Evening Post articles.

Mathan Levine made clear, and Chambers has repeatedly made clear for him, that Levine never knew what went into the envelope, and never saw what came out of it. He knew only that he had put it in the dumbwaiter shaft for Chambers in 1933; that he had gotten it out for him in October, 1943 (on cross-examination he corrected this to November 14, 1943); that it was sealed; and that it was bulky.

The handwritten and typewritten papers Chambers produced in Faltimore three days later, on Povember 17th. The developed microfilm he did not; he held it for the House Committee, hidden in the pumpkin. Why, if he really found then all together in the envelope, is still a mystery.

<sup>14/</sup> See Levine's testimony at R. 726-731; also his testimony on December 10, 1943, before the House Committee.

belated attempt in his Saturday Evening Post articles to plut this particular hole in his story. Mystically, he explains that "the meaning of the pumpkin" is "the heart meaning of the case", and that he was "moved by a subconscious intuition" to put the microfilms in it. (Saturday Evening Post, April 5, 1952, p. 72). Etrangely enough, even this explanation deals only with the three cylinders of undeveloped microfilm; for his decision "on the level of consciousness" was to divide the evidence "in order to try to find out what was on the undeveloped film" (ibid.). There is still no explanation of his failure to produce the developed film in Baltimore.

## Foreground: What the Documents Themselves Show

Documents must have been typed by one person (Priscilla Hiss), on one typewriter (the Hiss family Moodstock), currently over the three months period represented by the dates of the underlying State Department documents (January 5, to April 1, 1938). They must have been kept together in one envelope, a specific envelope, for ten years, over a disused dumbwaiter in Brooklyn. They must have rested there, in that envelope, with three cylinders of undeveloped microfilm and a "little spool of developed film (actually two strips)", as well as with the "long memo on yellow foolscap in the handwriting of Harry Dexter Maite Zand one or two smaller items of no particular importance."

<sup>6/</sup> Caltimore 10, a precis of a long War Department MID report routed to Mr. Hamilton, of the Mar Wastern Division of the Ttate Department, was obviously not written on the same typewriter as the others, and the Government made no contention that it was (R. 1097-1101); but hambers still pressed his recollection: "I believe Alger hiss gave me that paper". (R. 655, contrast R. 532).

This particular description comes from page 736 of an advance copy of Chambers's apologia, "Witness", shortly to be published. His April 5, 1952, article in the Saturday Evening Post speaks of "two strips of developed microfilm". His second trial testimony (R. 292) emphasizes that while the undeveloped film was in cylinders, the developed film was not. Then Appell of the FMI reached in and found it in the Green pumpkin on becember 2, 1943 (or when Chambers "took out the documents and handed them over"--whichever may be the fact--see R. 709-714; R. 295), they were still not in cylinders; according to Apent Appell, they were "wrapped one in another, wrapped in wax paper".

<sup>3/</sup> This description is from his April 5, 1952, Saturday Evening Post article. The text of the "memo on yellow foolscap" ascribed to harry Dexter White was read into the Congressional Record for January 30, 1950, by Representative Mixon, and the memorandum was there described as consisting of eight pages.

I attach affidavits of experts who have at last had an opportunity to examine and analyze the originals of the Baltimore Documents and the Hiss standards. Their qualifications have been set out before, in my earlier affidavits and in their affidavits which I annexed to mine. Mrs. Evelyn S. Ehrlich is an expert in the use of photomicrography to detect printing forgeries. Miss Elizabeth Eccarthy is an expert in the examination of questioned documents, handwritten and typewritten. Dr. Daniel P. Horran is an expert in physical and chemical analysis of paper, metals and other materials. They have examined the Ealtimore Documents, separately, according to their several expertnesses. They have recorded their findings in their affidavits, which I number

Exhibit 2S-I: Elizabeth McCarthy Exhibit 2S-II: Evelyn S. Ehrlich Daniel P. Norman

They find, and will testify at a new trial:

- 1. That the Saltimore Documents were not typed by one person, but by two, and probably more, and that therefore Priscilla Riss cannot have typed all of them, as Chambers said she did. (Exhibit 25-I)
- 2. That Priscilla Hiss id not type any of the Faltimore Documents. (Exhibit 25-I)
- 3. That neither Priscilla nor Alger Hiss made the pencil corrections on the Daltimore Documents. (Exhibit 25-1)
- 4. That the Paltimore Locuments, physically observed, fall into two categories of size, one of which is made up of sheets apparently cut down to a particular size

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(approximately 8" x 10%") after the typing had been done, but before the penciled corrections were made. (Exhibit 28-

- 5. That the same two categories show such different characteristics of aging and discoloration that they cannot have been stored together for ten years in a single envelope, and therefore cannot all have been kept in the envelope which Chambers recovered from the dumbwaiter. (Exhibit 25-III)
- 6. That the envelope in which Chambers said the documents had been kept is most peculiar in itself; its observable stains, both outside and in, and the condition of its flap, and of the two parts of the label which presumably once sealed it, pose questions which defy logical explanation. (Exhibit 2S-III, especially illustrative Figures 5, 6 and 7).
- 7. That none of the Baltimore Documents can have been kept in that envelope; they are devoid of the stains and pressure marks which they would have had to show if they had been in the envelope. (Exhibit 2S-III)
- 8. That the absence of stains and pressure marks on the Paltimore Documents cannot be explained by the presence

<sup>9/</sup> Spectrographic analysis of the typewriter ink at the edges of the pages which were cut off in the middle of line-end letters might have enabled us to prove more effectively that the cutting was done after the typing. The Government would not let us make the excisions necessary for this analysis.

of other protective material, since the envelope could not have held all these and the microfilms too. (Exhibit 25-

- 9. That the Baltimore Documents are a tricky set of pagers, typed on a machine, or machines, closely resembling the original Hiss machine, but with miscellaneously different typewriter ribbons and faked type raphical errors, plainly designed to confuse. (Exhibits 28-1, 28-II and 28-III)
- 10. That the typewriter in evidence (Woodstock "M230099) was certainly not the original Hiss machine, although it probably was the machine made to forge the Baltimore Documents. (Exhibits 25-II and 25-III)

In short, the typed falti ore Documents were not typed by Priscilla Hiss, or by any one person. They were not given to Chambers by Alger Hiss. They were not put in the envelope and kept in the dumbwaiter for ten long years. They are an ingenious set of forgeries.

#### CONCLUSION

After all my investigation, I still do not know exactly what Chambers did, or how me did it, or exactly what notivated min to frame alore Hiss. Some signs point

<sup>10/</sup> I have myself examined the envelope, and seen in it markings which might well have been made by the cylinders of undeveloped microfilm. There is another marking, made apparently by the presence of a squarish box or carton, approximately 3" x 3". This mark, from its snape and size, cannot be the mark of Chambers's "little spool of developed film"; and therefore even the "Pumpkin Papers" microfilm may well not have been in the envelope. Unfortunately, the United States Attorney would not permit us to split the envelope so that we could demonstrate photographically the interior markings and stains: The United States Attorney would not, either, let us see the 3 pages of "foolscap" on the ground that it had not been formally admitted as an exhibit at the trial—even though it had been produced in court, and its text has since been made public by Representative Nixon in the Congressional Record. The there or not the foolscap shows stains or pressure marks, it could not have adequately protected the Baltimore Documents. Kisseloff-24369

to the conclusion that, though his personal interest may have been largely to protect himself in the libel suit, the availability to him of the means for such self-protection may have been part of a much larger scheme, involving other people, and far larger objectives than the mere framing of Alger Hiss. This, however, is speculation. For purposes of this motion it should be enough that I present proof that every important point of the Government's case at the trials is vulnerable. Chambers was the Government's witness, its only real witness; and everything that he said, or did, or said he did, is tainted with fraud and forgery. The Government may present evidence to countervail some of my proffered proofs; if so, that will create issues. Those issues should be considered anew, by a jury. Wherever the truth may ultimately be found, in all its details, we have surely borne the burden of showing that on the proofs that went before the last jury a grave miscarriage of justice has occurred. We should be given a chance to rectify this at a new trial.

Sworn to before me this 21st day of April, 1952.

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#### EXHIBIT 23-I

COMMONWEAL 'H OF MASSACHUSETTS )

COUNTY OF SUFFOLK

I, MINAB TH McCARTHY, of Boston, Suffolk County, Massachusetts, on oath depose and say:

I reside at 16 Porter Street and have an office at 40 Court Street, both in said Boston.

I am a qualified examiner of questioned documents. I have stated my qualifications in this respect in an affidavit executed January 22, 1952, for filing in connection with a motion for a new trial of Alger Hiss on the ground of newly discovered evidence.

My affidavit of January 22nd dealt with the results of an experiment being conducted by the attorneys for Alger Hiss to determine the extent to which it would be possible as a practical matter to build or adapt a typewriter which would so nearly duplicate the typing of another machine that qualified document examiners, comparing speciments of typing from the two machines, would be led by ordinary standards of comparison to conclude that only a single machine had been used.

When I first agreed to assist in the experiment, I told

Mr. Lane, Mr. Hiss's attorney, that I doubted very much whether

such a machine could be made, but that if it could the knowledge

that such a thing was possible would be so important to the

profession of document examiners, as well as to the public at

large, that I thought I would be doing a public service by assist
ing in the experiment.

As my earlier affidavit shows, Hr. Lane's experiment, in terms of precise duplication of the typing of one machine by another, was carried to a point of perfection which I had not

I illustrated this by attaching to my affisupposed possible. davit specimens of typing from the two machines. It may be that Government document examiners, approaching these two sets of specimens with the knowledge that some of them were typed on a mechine deliberately fabricated so as to produce typing resembling that of another machine, have because of their forewarning been able to distinguish the products of the two machines; as of now, of course, I have no way of knowing how far they may have been successful in making such a distinction. I do believe, however, that the experiment wes carried to a point so close to complete duplication that any careful document examiner who from here on engages to compare questioned typing with semples, in a situation where the background facts allow the mosability that a dunlierte machine might have been constructed for forgery murnose, must take that mealbility into account, and must be prepared to be confronted with a duplication so substantially com late as to defy detection.

finally agreed to let him have an expert exemination made of the originals of the co-called Poltimor. Documents which had been introduced in evidence in the Figs trials, as well as the so-called Fiss Standards with which ir. Fisher, the Government's document expert, had commared them. We asked me to commare these two sate of documents with each other, and who with specimens of typing from the so-called Hiss machine in his mosa scion—that is, the machine which had been introduced into the trials as being the machine owned by the Hisses in the 1930's, and which had been used as the standard machine in the experiment of trying to create a duplicate. He said he wanted my opinion as to whether all three sets of documents had been typed on one machine—in

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which case, of course, the machine would necessarily be the socalled Hiss machine--or whether more than one machine was used, and, if so, how many.

I have never examined Mr. Lane's so-called Hiss machine, my work in connection with the construction of the duplicate having been limited to examination of specimens of typing from it and from the duplicate machine. However, since the experiment in duplication was finished and I made my January affidavit about it, I have read 'r. Daniel Norman's affidavit of March 7th in which he describes and illustrates the results of his physical examination of the machine, and the grounds for his conclusion that it is a deliberately altered machine. I have made my examination of the three sets of documents in the light of my knowledge of Pr. lorman's findings, as well as my own experience in studying the typing results of a machine deliberately oreated for the purpose of showing that forgery by typewriter would be possible.

Without considering the possibility of forgery, I should have concluded, by all standard tests ordinarily applied by questioned document examiners, that all three sets of documents were typed on the same machine. I should not have based this conclusion merely upon an inconsequential number of relatively identical peculiarities, but upon the more convincing fact that

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I find no substantial consistent deviations in type impressions as among the three sets of documents. However, my own experience has shown me that it is possible, by careful work on a machine, to eliminate almost completely the deviations which would normally have developed between its typing and that of another machine, and therefore, while I cannot say definitely that all three sets of documents were not typed on the same machine, I believe it just as possible, in the light of the observable facts, that the Baltimore Documents were typed on a machine which was not the original Hiss machine used for the standards, but another machine made to type like the original Hiss machine. Since the typing of the Baltimore Documents so closely resembles the typing of the specimens from the so-called Hiss machine, and since Dr. Norman has furnished evidence that that machine is a deliberately fabricated one, I can only conclude that, as between the two possibilities, the forgery of the Baltimore Documents is the more likely. If the Baltimore Documents are forged, the forgery is a good one, but it is no better than I know would be possible with careful workmanship.

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I have not confined my examination of the documents to a comparison of the typing for purposes of trying to reach an opinion as to how many machines were used. When Mr. Lane asked me to make this comparison he told me that there were additional points on which he wanted my opinion. He said that, while the defense had on earlier occasions been allowed to photograph the documents in one way or another, the originals had never, so far as he knew, been made available for close and detailed expert study. He told me that according to Chambers's testimony at the trial all the typewritten Baltimore Documents had been typed by

Priscilla Hiss and given to him by Alger Hiss at some time between January 5 and April 15, 1938. He asked me to examine the original documents closely and give him my opinion as to whether this testimony was correct.

I have done so, and am satisfied that Chambers's testimony on this point cannot possibly be correct. The following
are my more significant conclusions; I am prepared to support
and illustrate each of them in detail on the stand if given an
opportunity.

- 1. No one person typed the Jultimore Documents. There were certainly two typists, whose work varied sharply in evenness of pressure, typing skill, mechanical understanding and control of the machine, style habits, and other similar respects. No one person's work could exhibit such differences. It is suite possible that more than two typists were involved.
- Baltimore Documents, Priscilla Hiss cannot have typed them all.
  Furthermore, the characteristics of her typing make it perfectly clear that she was not either of the two crincipal typists involved. I base this conclusion to a considerable extent upon such factors, not clearly observable except from the original documents, as typing rhythm, pressure habits and variations, quality if touch, pace of typing, relative competence of the two hands, and the like. By conclusion from these factors is borne out by many other differentiating characteristics in such matters as style, mechanical skill, and habits of sind. This cills Hiss did not in my opinion type any of the Faltimore Pocuments.

typing errors and corrections are also extremely important.

It is a common habit of most typists, when an incorrect letter is struck, to push the carriage back and strike over the wrong letter with the right one. The normal and almost universal tendency, in doing this, is to strike the second, correct, letter more heavily, so as to obliterate the first, incorrect, impression.

In the Baltimore Documents I find from examination of the originals no less than twenty-seven instances where the ordinary habit is reversed, and the incorrect letter is struck tore heavily than the correct one. There is no such instance in any of the Hiss standards.

This difference goes far to support the conclusion

that Priscilla Hiss did not type the Baltimore Documents. But

it has an additional, far-reaching significance. The phenomenon is not isolated; it appears on seventeen pages of the Baltimore

Documents, and in the work of both of the clearly different

typists, so that it cannot be a personal idiosyncrasy. It is

such an extraordinary phenomenon, so lacking in rational explanation in the work of any ordinary typist, that it can scarcely

be explained on any other basis than that the typists of the

Baltimore Documents either were attempting to make precise and

intentional copies of someone else's unintentional typing errors,

or were attempting to simulate the work of some other relatively

inaccurate typist.

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h. While on the subject of typing errors, I feel I should comment on the statement of the prosecutor, Mr. Murphy, to the jury, that the jury could draw conclusions as to the identity of the typist by observing three "common typing errors", namely, the combinations "r" for "i", "f" for "g", and "f" for "d", and noting that they appeared both in the Baltimore Documents and in

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two of the standards, Government Exhibits 34 and 46-B.

In my opinion this observation was grossly misleading.

The combination "r" for "i" does not appear at all in the standards, in the sense of being a confusion between the two letters. The instance Er. Murphy obviously had in mind is in the word "transcript" in Government Exhibit 34, where the typist, having originally written the letters "transri", noticed the omission of the "c", and went back to type the letters "cr" over the letters "ri", thus superimposing the "r" on the "it.

The "combinations" "f" for "g" and "f" for "d" are the commonest kind of typing errors, committed by every typist because of the proximity of the letters on the keyboard. Even if Mr. Murphy's selection of what he calls "common typing errors" were correct—which they are not—or were unusual—which they are not—they are totally insignificant against the fact that the Baltimore Documents contain at least fifty typing errors of a kind which do bear on the personality of the typist and which do not appear anywhere in the standards, while on the other hand nine errors of that nature appearing in the standards never occur in the Baltimore Documents. Only four errors of this kind are common to the two sets of documents.

5. Entirely apart from the typing of the Baltimore Documents, my examination of the originals has given me an opportunity to draw certain conclusions from the pencilled corrections and proof-reading marks appearing Kassekhan4377'

A striking fact is that, whereas the Baltimore Documents are claimed to have been typed currently from day to day over a period of about three months, the pencilled corrections give the appearance of having been made in one continuous operation

rather than at the separate times when the separate pages should have been typed. The corrections and proof-reading marks were made with a soft, grayish-black pencil, in approximately the same condition of wornness and bluntness throughout, and are quite inconsistent with the idea that the same or different pencils were used at a number of different times over a three months period.

reading habits, they show that the pencil notations were carefully done, at one time, by one person, quite probably with stenographic training. I have studied numerous samples of the handwriting of Alger and Priscilla Hiss, as well as samples of documents furnished to me as taken from 'lger Hiss's files in the 1930's and showing his correctional and proof-reading habits. In my opinion neither Alger nor briscilla Hiss could have done the pencil marking on the documents.

have said, to have been made in one operation, examination of the ribbon imprint agrearing on the original documents makes it seem extremely unlikely that the documents were typed in a normal single continuous operation, or even consecutively by the mane reason over a period of three months. I base this observation on the fact that the ink on documents dated on the same day sometimes differs radically in color, documents dated within a few days of each other libewise show ink of different shades, and documents typed months apart show ink of much the same color. At least four, and probably more, ribbons were used, and if the documents were type? consecutively according to their dates it would appear that these four or more ribbons were slternately being out on and taken off the machine, sometimes



daily, or every day or so. The best ribbon, making the blackest and clearest impression, was used only once, in Baltimore Document No. 9. I do not undertake to sug est any explanation as to why this alternation of ribbons may have taken place, but merely point out that it appears entirely inconsistent with the normal use of a typewriter.

Elizabeth We Carthy

Sworn to before me this 1977 say of April, 1952.

Sichus MJavl. Jr.
Rotary Public

My commission expires November 7, 1953.

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### EXHIBIT 23-III

COUNTY OF ESSEX ; se.

I am President of Skinner & Sherman, Inc., 246 Stuart
Street, Boston, Mass. My firm is engaged in the business of
testing and analysis, both physical and chemical, of paper, and
other materials, for the United States Armed Services, Federal,
State, and Municipal Departments, and major industrial firms.
My qualifications, and those of my organization, in this and
related fields are set out in detail in an affidavit which I
executed on March 7, 1952, for filling in connection with a motion
for a new trial of Alger Hiss on the ground of newly discovered
evidence.

In the latter part of March, 1952, Chester T. Lane, attorney for Alger Hiss, informed me that the United States Attorney had finally agreed to make available to him for physical examination and analysis the originals of the so-called Baltimore Documents which were introduced in evidence at the Hiss trials, and he requested me and my organization to examine these documents by physical and chemical tests in an attempt to obtain any possible information as to their source and history. He told me that he was particularly interested in any conclusions which I could draw from such an examination which would bear upon the truth of the claim that Baltimore Documents 5-47 were all documents typed by one person on one machine in the period of approximately the first three months of 1938 and had all been kept together, with other material, in a single envelope from the middle of 1938 until November 1948.

Baltimore Documents 5-47 and Government Exhibits 34, 37, 39 and 46-B (the Hiss Standards) were made available to me and my organization under FBI guard in Boston on April 1, 1952.

Shortly thereafter, at my request, there were also made available the envelope (Government Exhibit 19) in which I understand it has been claimed that the documents were stored between 1935 and 1945, as well as Baltimore Documents 1-4 (the handwritten notes) and Government Exhibits 66 and 66-A (the paper on which Mr.

McCool typed in court).

I was permitted to cut a section of the blank portions of each of the typed Baltimore Documents, a section of page 3 of Government's Exhibit 46-B, and a section of the completely blank page of Exhibit 66. In most instances the sections were approximately 1" square but in a few instances as large as approximately 1" x 5". I was not permitted to take any section on which there was typing or writing of any kind, and wherever an abnormality of any kind, such as a stain or spot, was observed I had to leave at least half of the abnormality.

I was also permitted to cut six 1" squares from the envelope, one from the flap, three from the front and two from the back, the sections in each instance again being so selected that at least half of each stain in which I was interested was left intact on the envelope. (By "back" of the envelope I mean the side on which the clasp and label are found; by "front" I mean the opposite side—the side on which the address would normally be written.) When the specimens were taken, both from the documents and from the envelope, I would indicate the portion I wanted and an FBI agent would then cut it off, the agent and I

would initial the main part of the document, and we would then photograph the document and the portion cut therefrom, simultaneously, approximately in situ. It was not possible to photograph the markings on the inside of the envelope without slitting it open, and I was denied permission to do this.

Except as just indicated, I was permitted to photograph the documents and the envelope freely.

While I was allowed to take away and use as I saw fit the samples cut from the documents and from the envelope, the balance of the papers were at all times kept under surveillance by one or more representatives of the FBI.

As a result of direct observation of the papers and study of my photographs of them, as well as chemical and other analyses of the specimens which were furnished to me, I have been able to reach a number of definite conclusions bearing on the questions which Mr. Lane asked us to consider.

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- la. Physically, the typed Baltimore Documents except Nos. 9 and 10 fall into two different size categories:
  - A. 5½" x 11" (Baltimore Documents numbered 5, 6, 7, 8, 12, 13, 15, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47).
  - B. 8" x 10%" (Baltimore Documents numbered 11, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36).
- lb. From the arrangement of the typing on the pages of the documents in category B, including the observable narrow margins and the frequent slicing of the edge of the paper through the typed letters at the right margin, it appears probable that at some time after the typing was done all the sheets in this category were cut down from some other size or sizes to the present  $8^{\circ}$  x  $10^{\circ}_{5}$  size. I illustrate this observation by a photograph marked Figure 1, which is a 0.4 magnification of

Baltimore 22, page 1, showing the entire document right out to the edge of the paper. Figure 2 is a 0.4 magnification of Baltimore 17, page 1, showing similar crowding at the right margin, and particularly the cutting at the end of the 25th line. Figure 3 is a 3% enlargement of a portion of the right margin of the same page, showing how the last word in the 25th line of the text was cut off and the missing portion pencilled in. Figure 4 shows a 3% enlargement of the upper right margin of Baltimore 11, page 1, showing particularly the words in the 23rd and 25th lines which have been cut off at the edge of the paper.

Phenomena of this kind are present on many other pages of documents in category B, but are not present in any of the pages of documents in category A.

2a. The majority of the typed Baltimore Documents are on paper which meets present-day Federal specifications for white manifold papers of types IV and V. That is to say, they are composed wholly or predominantly of chemical wood fibers. Mone of the papers show an abnormally high acidity (the pH of water extracts of the paper vary between 5.0 and 5.5, while the specifications merely require that the pH be not less than 4.2), and there is no evidence of abnormal chemical properties in the many samples tested.

2b. All documents in category A (8½ x 11%) are heavily yellowed and show marks of age over substantial portions of their area to a degree not apparent in any of the documents in category B (8% x 10½). The appearance of the paper in the category B documents is very similar to that of Government manifold paper known to have been stored in ordinary office files from 1937 to 1952. The a mearance of the paper in the category A

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\*documents is that of sheets which have been subjected to deteriorating conditions which were not uniform across the area of the sheets.

It is well known that the conditions of storage of paper have a considerable influence on its degree of permanence, variations in heat and humidity being in particular reponsible for variations in the rate of aging and yellowing of paper. In view of the fact that most of the papers in both category A and category B are of the same general class (predominantly chemical wood pulp) and show no chemical idiosyncrasies (such as abnormal alum concentrations which would be reflected in abnormal acidity), I conclude that the two categories of documents could not have been stored together under the same atmospheric conditions for most of their existence.

Experiments which we have conducted with paper of comparable quality known to have come from Government files in the latter part of the 1930's have satisfied us that the present appearance of the typed Baltimore Documents cannot have been caused by the handling and exposure to light to which these documents have presumably been subjected since they were first turned over to the Government in November 1948. Particularly, such handling and exposure to light could not explain the varying degrees of aged appearance shown by the documents in the two categories, A and B.

3. What I have said indicates that it would have been impossible for all the typed Baltimore Documents to have been stored together over the 10 year period from 1938 to 1946. From this it follows that they cannot have been all stored together during that period in the envelope in which they are alleged to have been stored.

Kisseloff-24384

plus

I have carefully examined this envelope (Government Exhibit 19) for the purpose of determining whether it would nevertheless have been possible that some of the documents might have been stored in it. My examination leads to the conclusion that it would not have been possible. I base this observation on analyses of certain stains appearing on both the front and back of the envelope, and both inside and out, as well as upon observation of the effect made on the envelope by the presence of certain hard physical objects which may have been microfilm containers of one kind or another. These observations lead me to conclude that, unless very elaborate precautions had been taken, no set of papers could have been enclosed for a period of 10 years in this envelope without showing stains or pressure marks which are totally absent in all the typed Baltimore Documents. In view of the size of the envelope and the presumed size of the microfilm containers or other physical objects which were enclosed in it, I am satisfied that there would not have been room in the envelope for additional material sufficient to protect the Baltimore Documents.

At my suggestion Mr. Lane requested permission to examine the 8 sheets of yellow paper which were marked at the trial as Government Exhibit 20 for Identification, and which Chambers testified were also enclosed in the envelope. This permission was denied, so that I have no knowledge as to whether those yellow sheets reflect the type of stains or pressure marks to which I have referred. However, if they do, I am satisfied that no 8 sheets of ordinary paper could have been so arranged as completely to protect any set of papers, of the type used for the Baltimore Documents, from markings of the kind I have described.

I do not undertake to present at this time detailed data on the results of the examinations and analyses which I and my organization have made of the stains and pressure marks appearing on the envelope. I do, however, illustrate the condition of the envelope by the attached photographs—Figures 5, 6 and 7. For purposes of these photographs the envelope was held down by two rubber bands.

Figure 5 is a photograph of the front of the envelope with the flap open so that the stains on the outside of the envelope are visible.

Figure 6 is a similar photograph showing the back of the envelope with the flap open.

Figure 7 shows the back of the envelope with the flap closed. It is interesting to note that the portion of the label which is still attached to the flap shows an entirely different degree of discoloration and staining than does the portion of the label adhering to the back of the envelope, although they were clearly once part of the same label. Unfortunately, I was not permitted by the FBI to slit open the envelope so that I could take photographs of its interior, particularly photographs illustrating the internal stains which I have observed and analyzed, and the character of which precludes their being due to seepage or penetration from the outside.

4. Mr. Lane asked us to make a separate study of the ribbon thread counts visible on the typed Baltimore Documents. This study has established to our satisfaction that at least four ribbons were used in the typing of these documents. Alternation in the use of the various ribbons bears no discernible relationship to any possible grouping of the documents by their

dates; in fact, in a number of instances two documents dated some time apart are typed with a ribbon of a given thread count & while other documents with dates in between are typed with a ribbon of a different count.

I report the result of one further separate experiment which I conducted at Mr. Lane's request. He advised me that Ira Lockey, from whom the defense had acquired Woodstock No. N230099, had testified at the second trial that when he originally acquired the machine in 1945 it was out in a heavy rain in a Washington backyard. He asked me to determine whether No. N230099 could have been exposed outdoors to the elements for any length of time. As a basis for reaching a conclusion on this point I exposed a Woodstock typewriter of the same general class and approximately the same serial number outdoors in Ipswich, Mass., for a period of two weeks. For the first week, on days in which we did not have rain, we wet the typewriter down with water. In the second week, which was relatively dry, we did not. At the end of the first three days this comparison Woodstock machine showed appreciable signs of corrosion and damage in the form of paint flaking off and rust appearing on various parts of the mechanism. At the end of two weeks the type face, the type bars, the carriage ways, the slotted segment in which the type moves, and all the unpainted metal portions, showed heavy rusting and the paint on the carriage back and sides of the machine showed substantial flaking and spotting. No traces of rust or of flaking of the paint of the nature we have observed in this exposed comparison machine can be found on No. N230099. It appears to be merely a somewhat dirty machine.

In my opinion Woodstock No. N230099 could not be in its present condition if it had ever been exposed to a heavy rain, unless after such exposure it had been completely reconditioned.

Danil P. Norman.

#### COMMONWEALTH OF MASSACHUSETTS

Essex, ss.

Subscribed and gworn to before me, this 12th day of April, 1952.

Notary Public
My commission expires November 7, 1953.

EXADIR 28-II

Feehan.

COUNTY OF SUFFOLK )

EVELYN SELTZER EHRLICH, being duly sworn, deposes and says:

My name is Evelyn Seltzer Ehrlich. I live at 417 Beacon Street, Boston, Massachusetts. My background and training in the detection of spurious and deceptive imprints and typography, as well as my experience in the use of photomicrography in the detection and illustration of documentary forgeries, are outlined in an affidavit which I executed on January 24, 1952, for filing in connection with a motion being made for a new trial of Alger Hiss on the ground of newly discovered evidence.

In my earlier affidavit I dealt with two problems which Mr. Hiss's attorney. Chester T. Lane, had asked me to consider.

typewriter which Mr. Lane told me was supposed to have belonged to the Hiss family in the 1930's, and contrasted them with samples of typing taken from another machine which Mr. Lane told me he had had made with the object of duplicating as nearly as possible the typing from the so-called Hiss machine. The object of this examination was to determine how hearly perfect a duplication had been achieved. On the basis of my examination I found that I could successfully differentiate the typing of the two machines on the basis of a few specific characteristics, but, as I stated in my affidavit, except for these subtle details I found that the microscopic variations on one machine had been duplicated on the other so faithfully that I might not have believed it possible that two separate machines were involved if I had not been so informed in advance.

In addition, after studying the testimony given by the Government's expert, Mr. Ramos C. Feehan, in the second trial in the Hiss case, I expressed the opinion that any document expert, acting with reasonable care, who applied the criteria of comparison used by Mr. Feehan to the samples sent me by Mr. Lane from his two machines would reach the conclusion that a single machine had been used to type all of them.

2. The second problem which I considered in my affidavit of January 24th involved a three-way comparison between the typing in (a) specimens from the so-called Hiss machine in Mr. Lane's possession, (b) the Baltimore Documents, and (c) the documents introduced as Government standards at the trial and admittedly typed in the 1930's on the machine then owned by the Hisses.

For purposes of this comparison I was furnished with original specimens from the so-called Hiss machine, but only with photocopies of the Government standards—known as Government Exhibits 34, 37, 39 and 46-B-and of three of the Baltimore Documents. Mr. Lane explained to me that the original Baltimore Documents and the original Government standards were in the possession of the Government and that he did not have access to them for comparison purposes.

The photocopies thus supplied to me were in general so distorted by the copying process that I found them too inaccurate to work from. However, one photocopy—that of Government Exhibit 46-B, one of the standards of Hiss typing—was sufficiently clear to enable me to form a tentative conclusion that the machine on which that document was typed might well not be the same as the so-called Hiss machine in Mr. Lane's possession. I attached to my affidavit a series (Series B) of photo-

micrographs made at 15% and 17% magnifications, which in my opinion tended to support this tentative judgment. As I stated in my affidavit, I was unwilling to express any final judgment regarding the similarities or the inconsistencies between the two sets of typing without access to the original of the material used as a standard.

In the latter part of March, 1952, Mr. Lane informed me that he had had a conference with the United States Attorney and with the Judge, and that the Government had agreed to allow him to have access to the original Baltimore Documents and the original Government standards of Hiss typing for detailed examination and comparison with each other and with specimens from the so-called Hiss machine. Mr. Lane asked me to make such a detailed examination and comparison, with a view to seeing whether study of the originals would support any more positive conclusion than I had been able to reach on my earlier examination of the copies.

The original documents were put at my disposal in Boston under FBI guard on April 1, 1952, and I have been allowed to make an intensive study of them, and to take such photographs and measurements as I might wish. I have also been able to make a similar study of the original of Defendant's Exhibit TT, a letter apparently typed on the Hiss Woodstock in 1933. For comparison purposes I have had a large number of specimens furnished me as having been typed on the so-called Hiss machine (which I will call #N230099) at various times and with varying ribbons and operators, from the date when the machine was first discovered in April, 1949, down to the present.

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A 11 typed 1933

In studying and contrasting these three sets of documents (Baltimore Documents 5-47; the Hiss standards Government's Exhibits 34, 37, 39 and 46-B and Defendant's Exhibit TTT; specimens taken since April 16, 1949, from #N230099), I found many of them difficult to work from. The Baltimore Documents were all on poor types of paper with inadequate sizing and a high degree of absorbency. In many instances the ribbons were apparently moist. These factors resulted in obsouring the exact characteristics of the type which might have been observable on microscopic examination if the documents had been on other kinds of paper. Two of the Hiss standards -- Government Exhibits 34 and 39--are likewise inadequate for comparison purposes; the latter is an inexpensive and extremely absorbent bond, and the former, though with a good sizing surface, has a highly irregular surface conformation; and both are typed with a heavy, moist ribbon which further alters the measurements to such an extent that precise comparisons are almost impossible. In this connection, I have noted that when Mr. Feehan, in his testimony at the second trial, was illustrating to the jury the ten similar Nelling characteristics which he said supported his opinion that the dated 1937

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> The only reliable admparison I have found possible is between the three last-mentioned standards, and the specimens I have been furnished from #N230099. On the basis of this

same machine typed both the Baltimore Documents and the Hiss pass of

exhibits -- Government Exhibits 34 and 39-to illustrate every one

of his ten characteristics, with only two supporting references

standards, he used letters appearing in these two blurred defid 1936-1937

Kisseloff-24392

37 or Defendant's Exhibit TT.

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comparison I am now prepared to confirm the tentative judgment I formed earlier on the basis of my study of a photocopy of Government Exhibit 46-B.

In my opinion, #N230099 cannot be the same machine that typed Government Exhibits 37 and 46-B and Defendant's Exhibit TT.

I base this opinion upon certain differences in type impressions between many of the letters in the two sets of documents, these differences appearing with such a high degree of regularity as to preclude the possibility of their being due to variations of ribbon, typing pressure, or other peculiarities of operation, and being of such a nature that differences in imprint cannot be due to age or wear on the machine.

On the other hand, I have not found it possible to form a definite opinion as to whether the Baltimore Documents were typed on #N230099. I observe certain subtle details of difference, but these are of a kind which might quite possibly be due to the particular ribbons and the absorbent quality of the low grade of poorly sized paper which was used for the Baltimore Documents. The same is true of a comparison between the Baltimore Documents and the Hiss Standards 46-B, 37 and TT. As to these comparisons I can only say that the observable peculiarities in the type of the Baltimore Documents in my opinion more nearly resemble the peculiarities in the typing from #N230099 than they do the peculiarities in the Hiss Standards which I used for comparison.

I am attaching photographs intended to illustrate the grounds for my opinion. Series A, C, E and F show comparisons, at 15X magnification, of the "y", "t", "u" and "n" appearing in

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<sup>\*/</sup> Baltimore Document No. 10 was not included in the group of Baltimore Documents used for this study:

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all three sets of documents. The particular imprints which I have chosen to photograph have been selected not because they were unusual, but because after careful study I found them typical examples, for photomicrographic purposes, of the particular peculiarities which I observe in these letters throughout the three sets of documents. Nor are these four letters the only ones which could be used to illustrate my opinion. The kinds of distortions which I have illustrated, particularly by the "u" and the "n", could be equally well illustrated by photographic studies of many of the other characters on the keyboard.

The photographs in Series B and D are enlargments of details of the "y" and "t" appearing in the three sets of documents, at magnification 26%. The photomicrographs in Series A-F were made in the same way as those which were made for my earlier affidavit, except that polarized light was used for most of the photomicrographs included with this affidavit.

SERIES A and B

The clear-out sharp angles which are almost always apparent at the juncture of the seriphs and the legs of the small letter "y" in the Hiss Standards 46-B, 37 and TT are almost always blurred and indistinct in the imprints of this letter by N230099. The left leg of the small letter "y" appears to meet the main staff of the letter at a higher point in the imprints of this letter in the Hiss Standards than in the imprints made by #N230099. This difference makes the descender of the small letter "y" longer in the Hiss Standards than it does in the imprints from #N230099. There is a break or cut in the type face of the terminal arc in the descender of the small letter "y" in #N230099 which does not appear in Kisseloff-24394

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the other two sets of documents. This defect helps to obscure the difference between the length of the descender of the "y" in the #N230099 machine and that of the "y" in the Hiss Standards where the type face is continuous in this terminal curve. It also tends to confuse micrometric comparisons between the letter "y" as it appears in the Baltimore Documents and as it appears in specimens from #N230099.

## SERIES C and D

wider in most of the imprints of this letter in the Hiss Standards 46-B, 37 and TT than in the imprints of this letter by #N230099, and the line of the curve follows a different pattern.

## SERIES E

u. The angles where the lower scriph and the loop, respectively, meet the right leg are different in the imprints of #N230099 from those in the Hiss Standards 46-B, 37 and TT.

### SERIES F

Hiss Standards 46-B, 37 and TT, and the imprints in the typing from #N230099, are most clearly shown in the angles where the scriphs meet the left and right leg and where the loop meets the left upright.

Evelyn Detter Emlich

Sworn to before me this

14 th day of April, 1952.

Kisseloff-24395

Motary Public 11/7/53

#### EXHIBIT I-B

STATE OF NEW YORK SS.:

I, Elizabeth McCarthy, of Boston, Suffolk County, Massachusetts, on oath depose and say:

I reside at 16 Porter Street and have an office at 40 Court Street, both in said Boston.

I am a qualified examiner of questioned documents.

I was graduated from Vassar College with a degree of A.B., from Simmons College, and from Portia Law School with a degree of LL.B.

I am an attorney at law.

During the last sixteen years I have testified frequently in state and federal courts in many parts of the country in cases involving questioned handwriting, typewriting, inks, paper, rubber stamps, imprints, et cetera. I have frequently been employed as a document expert by both federal and state prosecuting officials and law enforcement agencies, and pursuant to such employment have examined documents, prepared reports, rendered expert opinions, and presented expert testimony in court on behalf of both federal and state governments. I have lectured at various law schools and before bar associations and banking groups on the subject of document identification, and on the presentation of testimony on the subject. I have qualified as an expert in the examination of disputed typewritten documents in many courts in various jurisdictions and have been consulted by many judges of such courts. I am at present the document expert for the Police Department of the City of Boston and for the Massachusetts State Police. I have had occasion in many cases to make intensive studies of questioned typewriting and to make comparisons with samples taken from other machines.

Heretofore, so far as I am aware, it has been the underlying assumption of all qualified document examiners, including myself, that no two typewriters could ever, merely by accidental coincidence, make identical impressions, and also that it would be as a practical matter impossible to change or adapt any one machine to the extent necessary to enable it to duplicate the product of another machine in all relevant respects. As a consequence it has been the practice of document examiners, however highly qualified, to concentrate their examination upon the presence or absence of a substantial number of identical peculiarities or irregularities in the questioned and known typing, in the belief that if any considerable number of such identical peculiarities or irregularities was found there would be no possibility that even the laws of chance could have produced such peculiarities in two separate machines. This evidently was the basis of the opinion given by the Government's expert, Ramos C. Feehan, in his testimony at the second trial, since he testified solely as to the existence of ten specific identical peculiarities in the type impressions in the two sets of documents. It could not have occurred to Mr. Feehan, any more than it would have occurred to any other qualified document examiner, that even a possibility existed of a machine having been fabricated to such an extent of perfection as to be able to produce as many identical peculiarities of type as appeared in the two sets of documents.

In the earlier part of this year I was consulted by Chester T. Lane, Esquire, attorney, of 70 Pine Street, New York City. He told me he was conducting an experiment to determine whether it would as a practical matter be possible to build a typewriter which would meet the standards of identity accepted by document examiners as grounds for a conclusion that a single machine had been used in two sets of documents. He said he had for a long time been looking for a qualified expert who could assist in the experiment by checking the results but that all the experts he had so far talked to had refused to have any part of it. I said I doubted that such an experiment could in any large measure be successful, but I expressed my willingness to examine the products of his experimental machine as the experiment continud, and to point out the respects in which the attempted duplication had not yet been successful. In undertaking this assignment I had in mind that the profession of document examiners, as well as the public at large, were entitled to learn whether any such experiment could be successfully conducted, since if it could, general knowledge of the fact would be essential as a means of preventing large numbers of forgeries which otherwise might be successfully carried out.

It was agreed that I should confine any examination to samples from the two machines without at any time inspecting the machines themselves, or any duplicates of their type; and my work throughout

has been confined to typed samples.

The experiment has now been completed to the greatest extent possible in the time allowed. I am not prepared to say that the duplication btween the two machines is even yet complete to the highest degree of accuracy, and in fact I know that there are still a small number of characters sufficiently dissimilar so that in the light of the careful observation I have had occasion to give to samples from the two machines during the progress of the experiment I should myself find it possible to distinguish between the products of the two machines. Nevertheless, it is my opinion, based upon my long experience in methods of questioned document examination, that the duplication has progressed to such a degree that an expert in the field, however highly qualified, would find it difficult if not impossible to distinguish between samples from the two machines.

I attach samples of the writing from the two machines, which I believe will demonstrate the soundness of this conclusion. I have a key showing which samples were made on which machine, and shall be glad to furnish it to the court should it be desired to check the accuracy of the results of any test to which the Government may choose to sub-

ject the samples.

I should add that even if it can be demonstrated that my above conclusion is unfounded, it is my opinion as an expert in the examination of questioned documents that the duplication has progressed to a point where any document examiner not forewarned (as anyone now examining these samples must necessarily be) that a deliberate attempt at duplication of machines had been made, would be deceived into thinking that all the samples were made on a single machine. particular, the success of the experiment shows that any such testimony as that given by the Government's expert, Mr. Feehan, at the second trial, basing his conclusion of identity of machines on the identity of only ten characters in the two sets of documents, is absolutely worthless.

ELIZABETH MCCARTHY

Sworn to before me this 22nd day of January, 1952.

MARGARET L. BURTON
Notary Public for the State of New York
Qualified in New York County
No. 31-0515250
Certs. Filed with Co. Clks., Kings and
Rockland and with City Reg's. N. Y. and Kings
Commission Expires March 30, 1953

(Seal)

# Carnegie Endowment for International Peace

ALGER HISS
PRESIDENT
522 FIFTH AVENUE
NEW YORK 18, NEW YORK

CABLE ADDRESS: INTERPAX NEW YORK TELEPHONE: VANDERBILT 6-5525

Hanover, New Hampshire August 19, 1947

Dear Mr. White:

When you called on the telephone last Friday afternoon I was with some one and so had the opportunity only of covering the essential point of our desire to have you help us on the problems and on the basis you and I had discussed at lunch. I wanted to fine ever with you a little more concretely than we had at lunch the assistance on the writing end. I wasn't able to reach you by phone later Friday afternoon and so I send you this scratch.

I was very glad to find you already knew
Paul Appleby. That will facilitate good working relations.
I think I made clear at lunch that Paul, John Russell and
I have got our ideas pretty well fixed, subject to points
that will be made at the August 25th session and in the
review by various people we will get of the revision to
follow August 25. I don't think, however, that I was so
precise as I would have liked to have been in a later talk
(after it was definitely set that you were available and
we not hampered by other commitments) as to the kind of
editorial assistance I think we will need.

Negatively put, it isn't a ghost-writing assignment or even a re-write job. Rather it's advice in the re-writing and help in the collecting of suggestions made on August 25 and subsequently. We will have a stenographer to help in making a record of the August 25 meeting and I realize that you will utilize that session targely to acquire background and to orient yourself in the field. Nonetheless I think it would help greatly if you could attempt to keep notes of your own of the main suggestions made. This would supplement John Russell's notes as he will have to be free to participate with Paul fully in the substantive discussion, with the result that his notes may necessarily suffer.

If in addition you and Paul and John can work out arrangements whereby you can actually take over re-drafting Kisseloff-24404



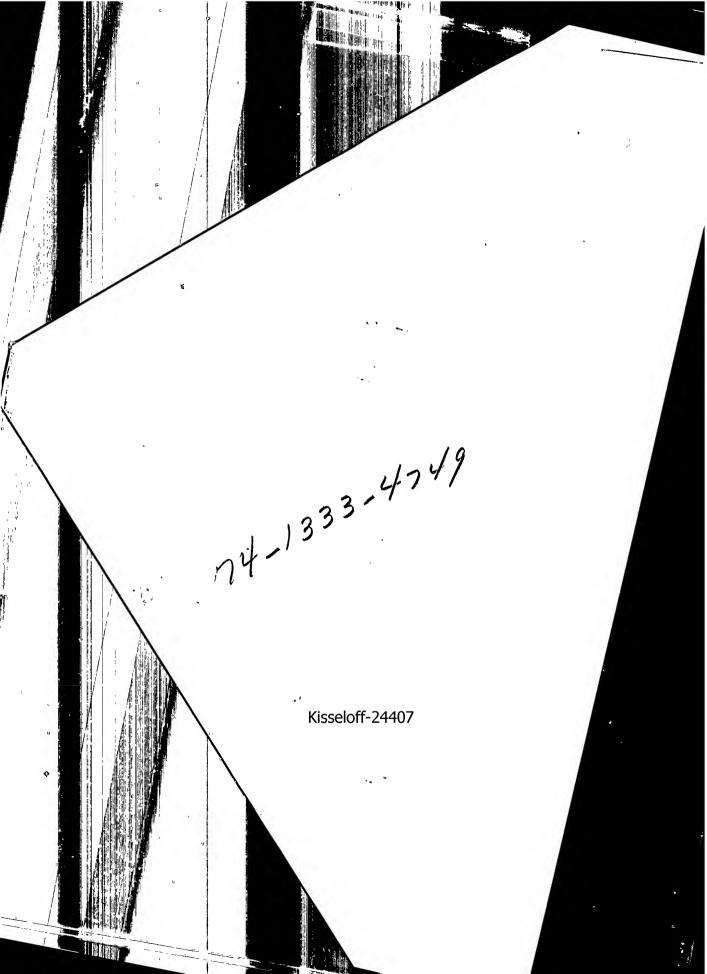
portions of the text — in the introduction or recommendations so much the better. But that must, I think, be left up to Paul to decide as to the most efficient way of proceeding at the time when the three of you sit down together next Monday night or Tuesday morning after the session with the consultants. I'm sure, in any event, that you and Paul will work out arrangements that will be helpful to Paul in the grind of getting this baby born.

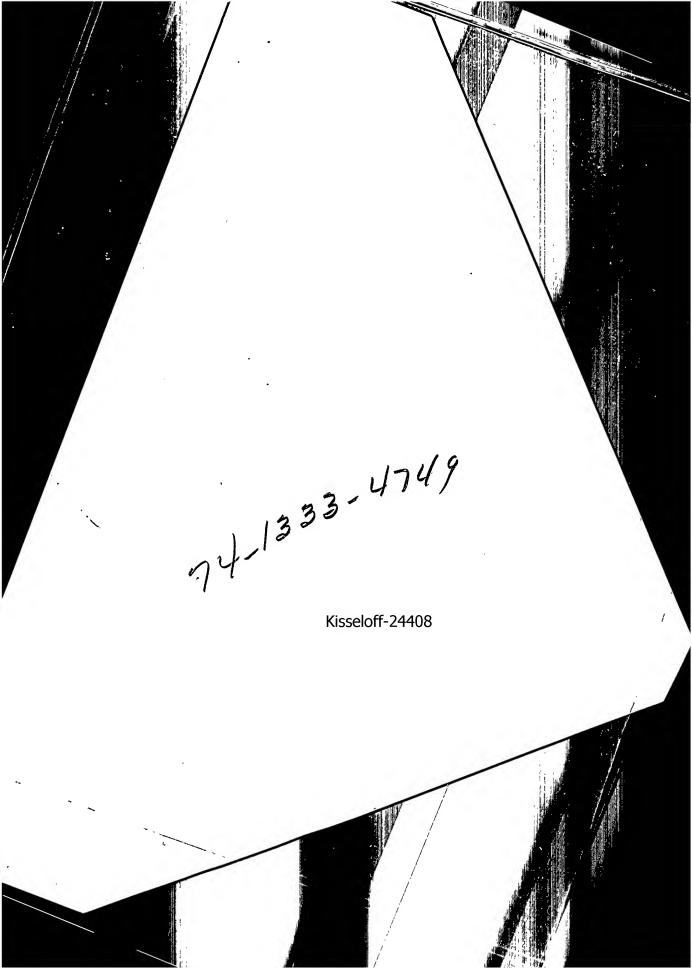
I'm going to ask Miss Sayre to make a copy of this to forward to Paul for his information so that we can all keep au courant of each other's thinking.

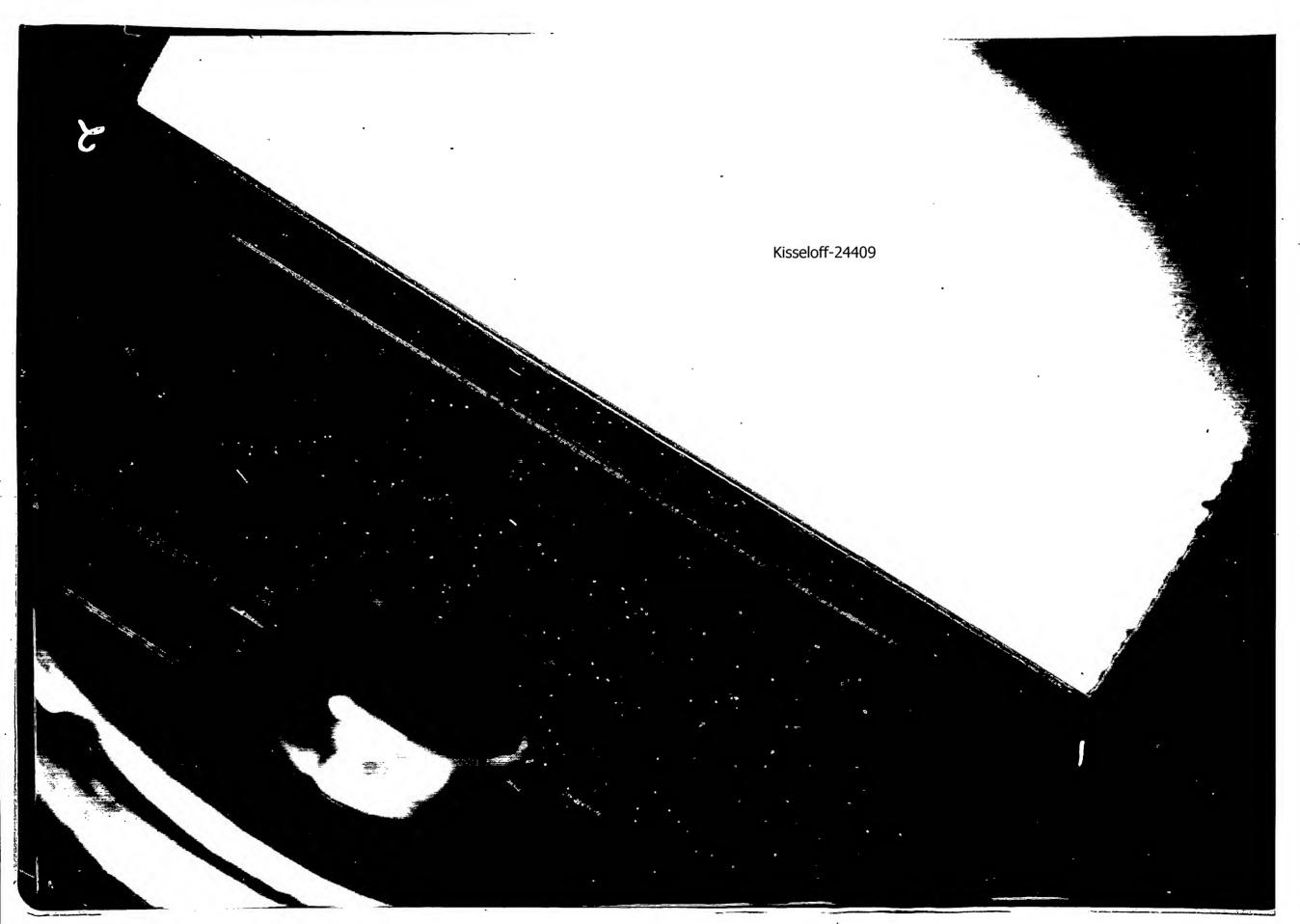
Cordially,

ALGER HISS

Mr. Llewellyn White 92 Grove Street New York 14, New York

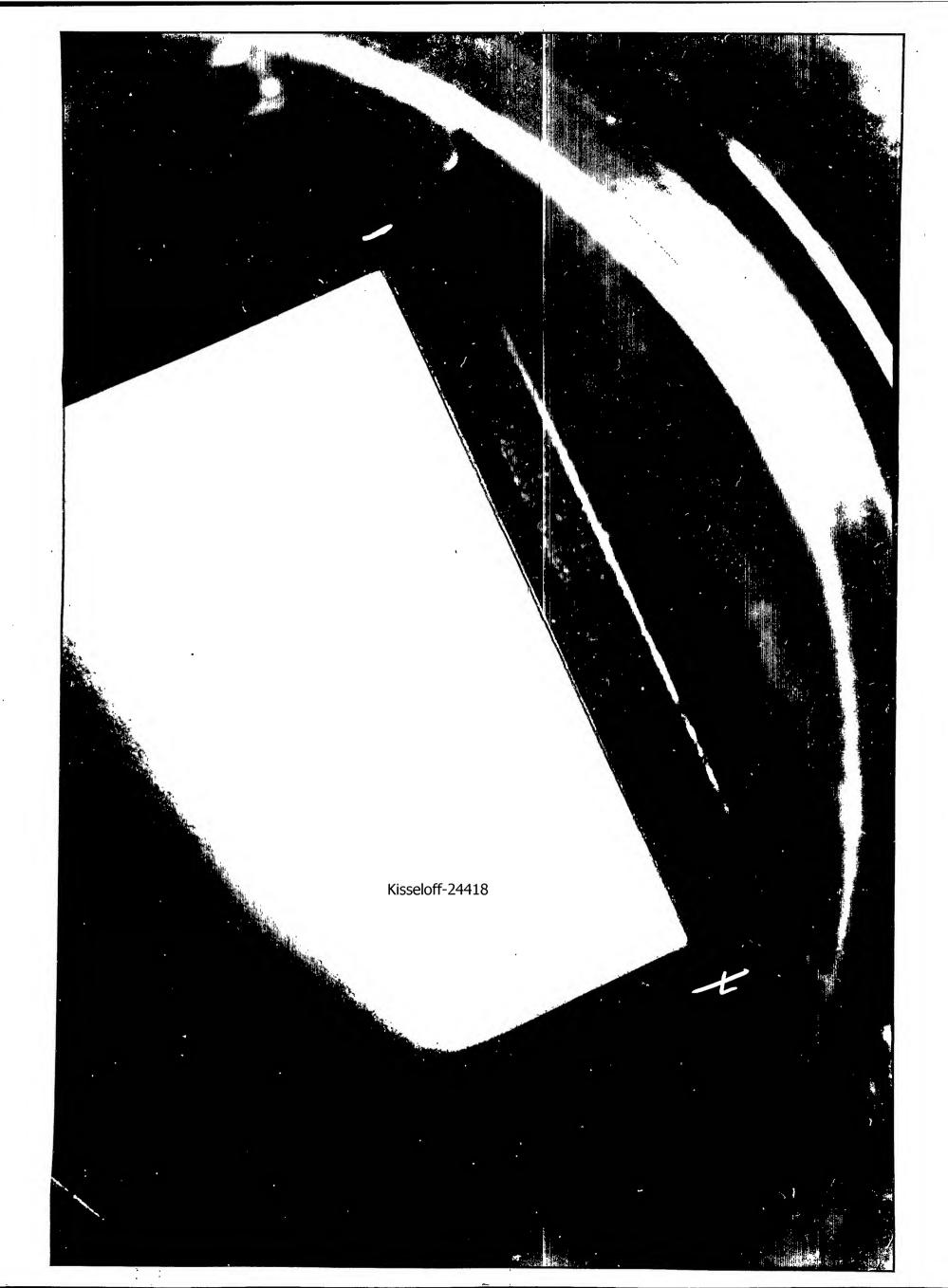


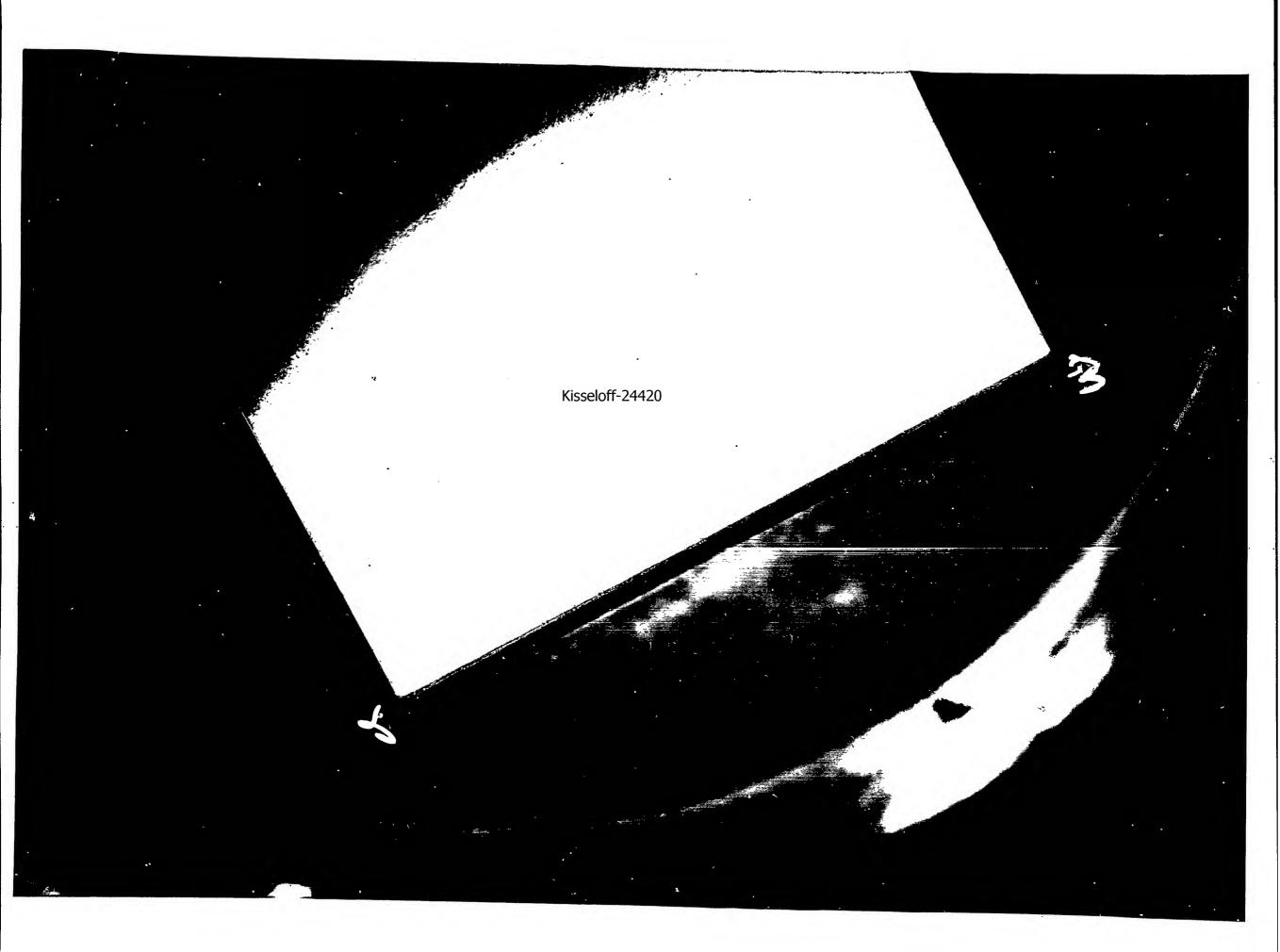




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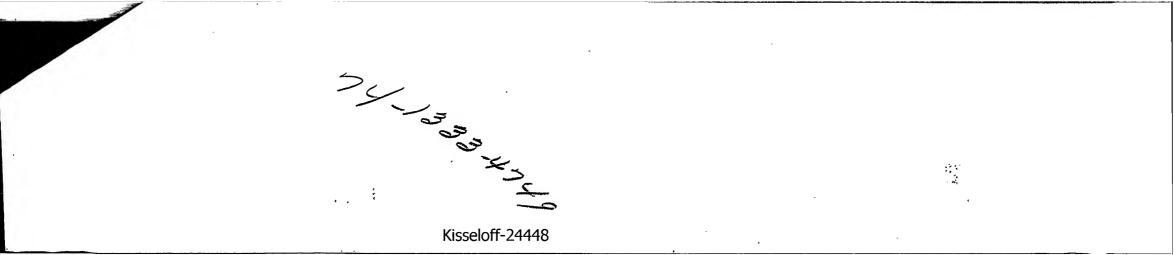
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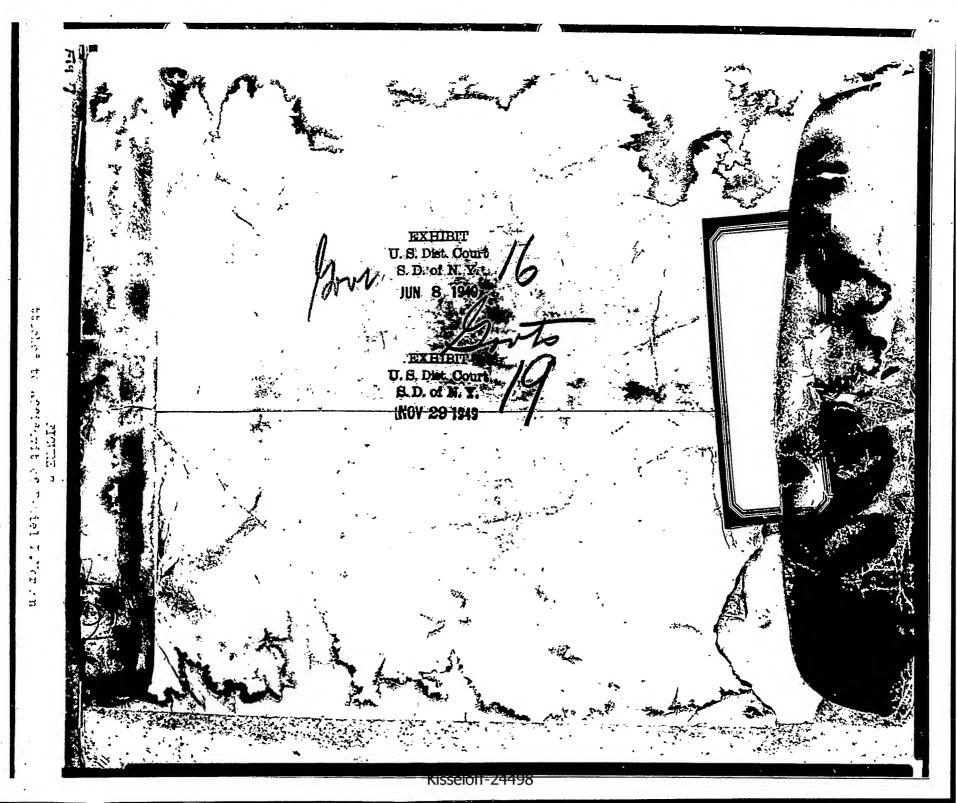
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attached to affidavit of Daniel P. Norman

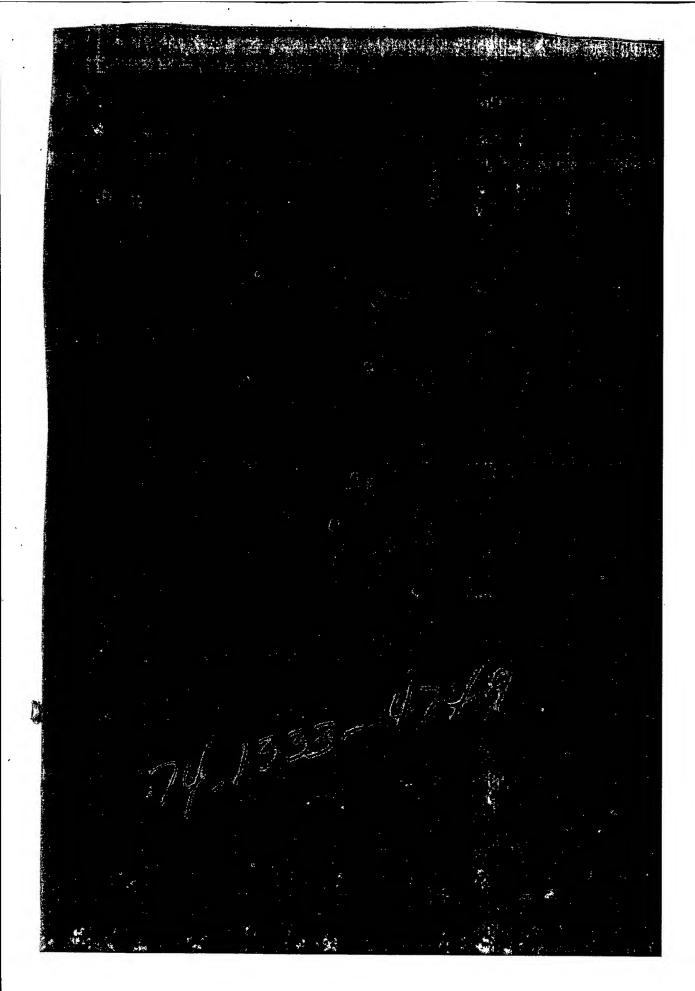
DEPARTMENT OF JUSTICE

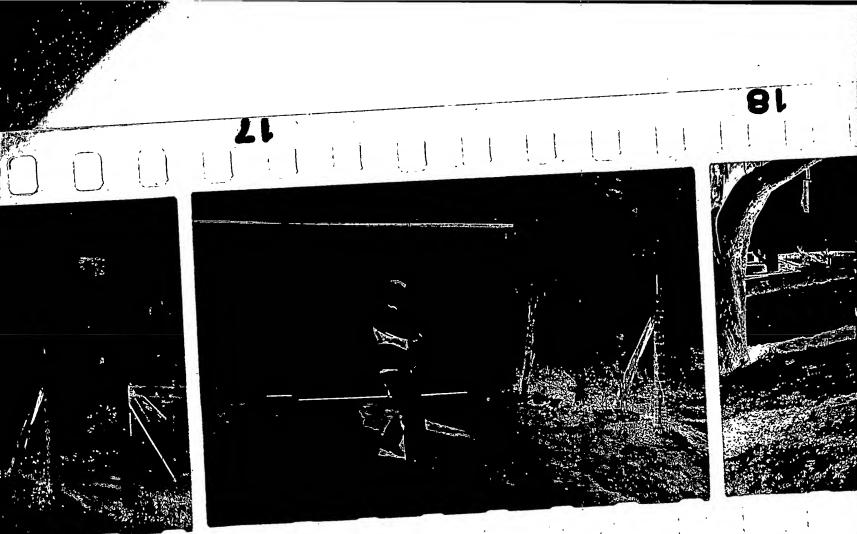
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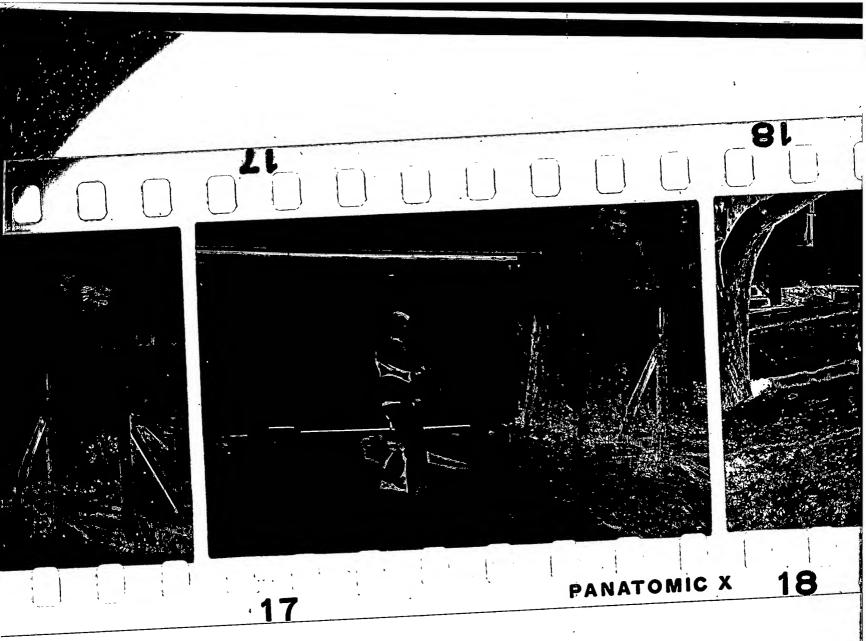
## PEDERAL BUREAN OF INVESTIGATION U. S. DEPARTMENT OF JUSTICE WASHINGTON, E. D.







PANATOMIC X 18



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